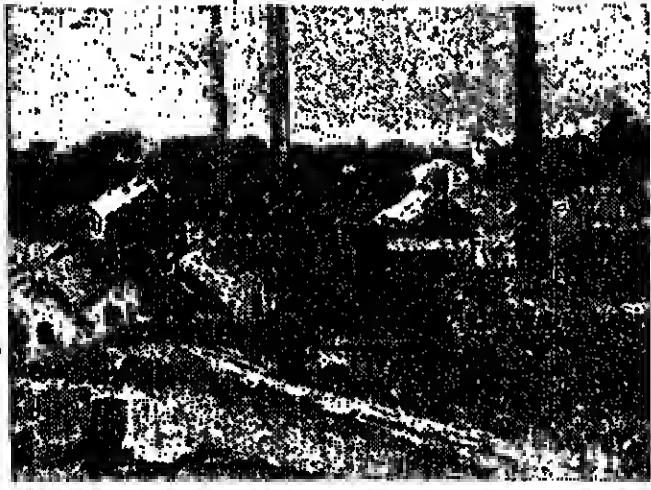
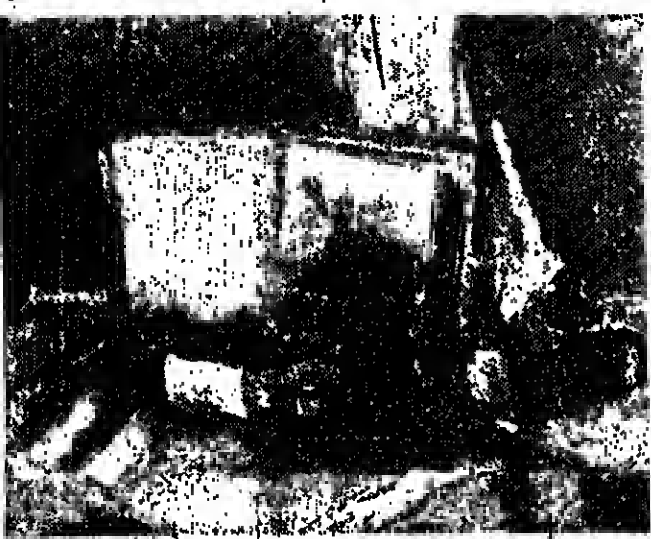




A student of some brilliant masters of Romanian painting, such as Nicolae Tonitza, Gheorghe Tereanu and Francisc Siraia, painter Gheorghe Văduțiu (b. 1908) expressed himself on several planes: from easel painting (his predilection) to mural painting, in the country and abroad also designing theatre costumes. Having no purely personal view on the fine arts language, the artist has distinguished himself especially by his landscapes, portraits and still lifes. A robust talent, he fringes to his paintings a real show of light and colour, of fluid transparency; but everything relies on a firm equilibrium of chromatic accents. His canvases emanate pictorial force and aggressive music. Under his brush, the most humble existence acquires the values of an authentic show. And it is this very essential aspect of life that really fascinates Văduțiu, whether it is lyric or dramatic, realistic or violent, tender or ironic. A show of the world that he is involved in and that he watches with understanding and fond reverie. He thus enters, through his ideological and stylistic options and thanks to the masterliness that the exception of his work noticed, in the classical tradition of Romanian art, the one thirsting for vitality and truth, for the poetry of colours. Hence the lack of showy display and primness, the avoidance of ostentatious excesses and harshness. His painting is an original alloy of mystery and dramatic accents, lyricism and gentleness. And, although his paintings fall into a wide area of indigenous fine arts, they are easily recognizable. A colourist by vocation, Văduțiu is not a maker — of copies of nature; his artistic approach proves to be a strained travel in the geography of his own emotional states and in the space of the ordering laws of thinking. The motif — very much as in his portraits or in his still lifes — is just a pretext; the canvas lives through its emotional level.

PAUL ANTIM ■



ROMANIAN NEWS
INFORMATION AND COMMENTARY
WEEKLY PUBLISHED BY
THE ROMANIAN NEWS AGENCY
AGERPRES
IN ENGLISH AND
FRENCH: Editorial and administrative offices: 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81, 82, 83, 84, 85, 86, 87, 88, 89, 90, 91, 92, 93, 94, 95, 96, 97, 98, 99, 100, 101, 102, 103, 104, 105, 106, 107, 108, 109, 110, 111, 112, 113, 114, 115, 116, 117, 118, 119, 120, 121, 122, 123, 124, 125, 126, 127, 128, 129, 130, 131, 132, 133, 134, 135, 136, 137, 138, 139, 140, 141, 142, 143, 144, 145, 146, 147, 148, 149, 150, 151, 152, 153, 154, 155, 156, 157, 158, 159, 160, 161, 162, 163, 164, 165, 166, 167, 168, 169, 170, 171, 172, 173, 174, 175, 176, 177, 178, 179, 180, 181, 182, 183, 184, 185, 186, 187, 188, 189, 190, 191, 192, 193, 194, 195, 196, 197, 198, 199, 200, 201, 202, 203, 204, 205, 206, 207, 208, 209, 210, 211, 212, 213, 214, 215, 216, 217, 218, 219, 220, 221, 222, 223, 224, 225, 226, 227, 228, 229, 230, 231, 232, 233, 234, 235, 236, 237, 238, 239, 240, 241, 242, 243, 244, 245, 246, 247, 248, 249, 250, 251, 252, 253, 254, 255, 256, 257, 258, 259, 260, 261, 262, 263, 264, 265, 266, 267, 268, 269, 270, 271, 272, 273, 274, 275, 276, 277, 278, 279, 280, 281, 282, 283, 284, 285, 286, 287, 288, 289, 290, 291, 292, 293, 294, 295, 296, 297, 298, 299, 300, 301, 302, 303, 304, 305, 306, 307, 308, 309, 310, 311, 312, 313, 314, 315, 316, 317, 318, 319, 320, 321, 322, 323, 324, 325, 326, 327, 328, 329, 330, 331, 332, 333, 334, 335, 336, 337, 338, 339, 340, 341, 342, 343, 344, 345, 346, 347, 348, 349, 350, 351, 352, 353, 354, 355, 356, 357, 358, 359, 360, 361, 362, 363, 364, 365, 366, 367, 368, 369, 370, 371, 372, 373, 374, 375, 376, 377, 378, 379, 380, 381, 382, 383, 384, 385, 386, 387, 388, 389, 390, 391, 392, 393, 394, 395, 396, 397, 398, 399, 400, 401, 402, 403, 404, 405, 406, 407, 408, 409, 410, 411, 412, 413, 414, 415, 416, 417, 418, 419, 420, 421, 422, 423, 424, 425, 426, 427, 428, 429, 430, 431, 432, 433, 434, 435, 436, 437, 438, 439, 440, 441, 442, 443, 444, 445, 446, 447, 448, 449, 450, 451, 452, 453, 454, 455, 456, 457, 458, 459, 460, 461, 462, 463, 464, 465, 466, 467, 468, 469, 470, 471, 472, 473, 474, 475, 476, 477, 478, 479, 480, 481, 482, 483, 484, 485, 486, 487, 488, 489, 490, 491, 492, 493, 494, 495, 496, 497, 498, 499, 500, 501, 502, 503, 504, 505, 506, 507, 508, 509, 510, 511, 512, 513, 514, 515, 516, 517, 518, 519, 520, 521, 522, 523, 524, 525, 526, 527, 528, 529, 530, 531, 532, 533, 534, 535, 536, 537, 538, 539, 540, 541, 542, 543, 544, 545, 546, 547, 548, 549, 550, 551, 552, 553, 554, 555, 556, 557, 558, 559, 560, 561, 562, 563, 564, 565, 566, 567, 568, 569, 570, 571, 572, 573, 574, 575, 576, 577, 578, 579, 580, 581, 582, 583, 584, 585, 586, 587, 588, 589, 590, 591, 592, 593, 594, 595, 596, 597, 598, 599, 600, 601, 602, 603, 604, 605, 606, 607, 608, 609, 610, 611, 612, 613, 614, 615, 616, 617, 618, 619, 620, 621, 622, 623, 624, 625, 626, 627, 628, 629, 630, 631, 632, 633, 634, 635, 636, 637, 638, 639, 640, 641, 642, 643, 644, 645, 646, 647, 648, 649, 650, 651, 652, 653, 654, 655, 656, 657, 658, 659, 660, 661, 662, 663, 664, 665, 666, 667, 668, 669, 670, 671, 672, 673, 674, 675, 676, 677, 678, 679, 680, 681, 682, 683, 684, 685, 686, 687, 688, 689, 690, 691, 692, 693, 694, 695, 696, 697, 698, 699, 700, 701, 702, 703, 704, 705, 706, 707, 708, 709, 710, 711, 712, 713, 714, 715, 716, 717, 718, 719, 720, 721, 722, 723, 724, 725, 726, 727, 728, 729, 730, 731, 732, 733, 734, 735, 736, 737, 738, 739, 740, 741, 742, 743, 744, 745, 746, 747, 748, 749, 750, 751, 752, 753, 754, 755, 756, 757, 758, 759, 760, 761, 762, 763, 764, 765, 766, 767, 768, 769, 770, 771, 772, 773, 774, 775, 776, 777, 778, 779, 780, 781, 782, 783, 784, 785, 786, 787, 788, 789, 790, 791, 792, 793, 794, 795, 796, 797, 798, 799, 800, 801, 802, 803, 804, 805, 806, 807, 808, 809, 810, 811, 812, 813, 814, 815, 816, 817, 818, 819, 820, 821, 822, 823, 824, 825, 826, 827, 828, 829, 830, 831, 832, 833, 834, 835, 836, 837, 838, 839, 840, 841, 842, 843, 844, 845, 846, 847, 848, 849, 850, 851, 852, 853, 854, 855, 856, 857, 858, 859, 860, 861, 862, 863, 864, 865, 866, 867, 868, 869, 870, 871, 872, 873, 874, 875, 876, 877, 878, 879, 880, 881, 882, 883, 884, 885, 886, 887, 888, 889, 890, 891, 892, 893, 894, 895, 896, 897, 898, 899, 900, 901, 902, 903, 904, 905, 906, 907, 908, 909, 910, 911, 912, 913, 914, 915, 916, 917, 918, 919, 920, 921, 922, 923, 924, 925, 926, 927, 928, 929, 930, 931, 932, 933, 934, 935, 936, 937, 938, 939, 940, 941, 942, 943, 944, 945, 946, 947, 948, 949, 950, 951, 952, 953, 954, 955, 956, 957, 958, 959, 960, 961, 962, 963, 964, 965, 966, 967, 968, 969, 970, 971, 972, 973, 974, 975, 976, 977, 978, 979, 980, 981, 982, 983, 984, 985, 986, 987, 988, 989, 990, 991, 992, 993, 994, 995, 996, 997, 998, 999, 1000.

ROMANIAN NEWS

ELEVENTH YEAR
9 (518)
MARCH 4
1988
12 PAGES — 3 LEI

A BROAD DEMOCRATIC FORUM THE ALL-COUNTRY CONFERENCE OF PEOPLE'S COUNCILS CHAIRMEN

In the presence of Nicolae Ceaușescu, General Secretary of the Romanian Communist Party, President of the Socialist Republic of Romania, the works of the fourth all-country Conference of the People's Councils Chairmen started in Bucharest, on Thursday, March 3.

The agenda of the Conference included the following items: 1. Report on the tasks devolving on the people's councils for fulfilling the plan of socio-economic development by territorial units in 1988 and the whole outmost program for implementing the objectives laid down by the Thirteenth RCP Congress; 2. The tasks devolving on the people's councils for fulfilling the town and country planning and modernization programme with a view to most efficiently using the land and reducing the built-up areas; 3. The role of the urbanisation-administrative level of all localities; 4. On the activity carried on by people's councils for fulfilling the tasks of the new agrarian revolution, the implementation of the agricultural development plan and the assurance of the firm application of territorial self-supply programme; 5. The tasks devolving on the people's councils from the party and state resolutions concerning the cultural-educational and health-care activity; 6. The improvement of the people's councils' work style and methods, the thorough organization of their activity for fulfilling in the best conditions their prerogatives; 7. The use of the democratic framework of the citizens' participation in carrying through the tasks devolving on the local bodies of state power and administration.

(cont. on p. 2)



SPEECH BY THE PRESIDENT OF THE REPUBLIC NICOLAE CEAUȘESCU

Speaking on March 3 at the opening session of the fourth all-country conference of the chairmen of people's councils, President Nicolae Ceaușescu for the first time in his career showed that the democratic forum was called to discuss the work of the local bodies of state power in the first two years of the current five-year period spanning 1986-1990 and set the measures for the further improvement of their activity.

President Nicolae Ceaușescu reviewed the great changes to Romania in the years of socialism and stressed that, through a just policy of raising a high rate of accumulation and of maintaining it so, the national wealth had nearly reached 5,000 billion lei, a roughly 30-fold or so increase from 1945, with the fixed assets totalling about 3,200 billion lei. That was behind the over 14 times rise in the national income which was the basis for the working people's pay to rise 14 times or so.

That was achieved, especially since the Ninth RCP Congress that paved the way for the

ascription of the revolutionary principles and the democratic development of the Romanian socialist society. Had a new, revolutionary course not been charted to put an end to pre-established patterns, to dogmatism, to the mechanical copying of the experience of other countries, and to firmly fight everything that was old and outdated, to boldly promote the new in every field, the great changes and the multifaceted progress of Romania would not have been possible, said the speaker.

The Romanian head of state stressed the importance of the administrative reorganization of the country twenty years ago, showing that by abolishing the regions and districts, and creating the counties, it discarded a number of intermediate links and stages to bring the central management closer to the basic units, to the people and in that way provided a proper framework for the policy of the rational distribution of the forces of production in the territory, of the harmonious development of the country to be implemented.

The Romanian head of state showed that the total volume of per capita economic activities, worth at least 60,000 lei annually, as set by the Thirteenth RCP Congress, was attained two years earlier, with the exception of two counties — Botoșani and Vaslui — which will reach that level by 1989, and that as far as the per capita industrial production was concerned 24 counties had attained and topped the national level of 50,000 lei, set by the same congress, in 1987. The number of working persons in 1,300 localities throughout the country stood at 22 at the end of 1987, the task of bringing the number of working persons to 1,200 inhabitants to an average 487-501 by the end of the ongoing five-year period being thus fulfilled one year ahead of schedule.

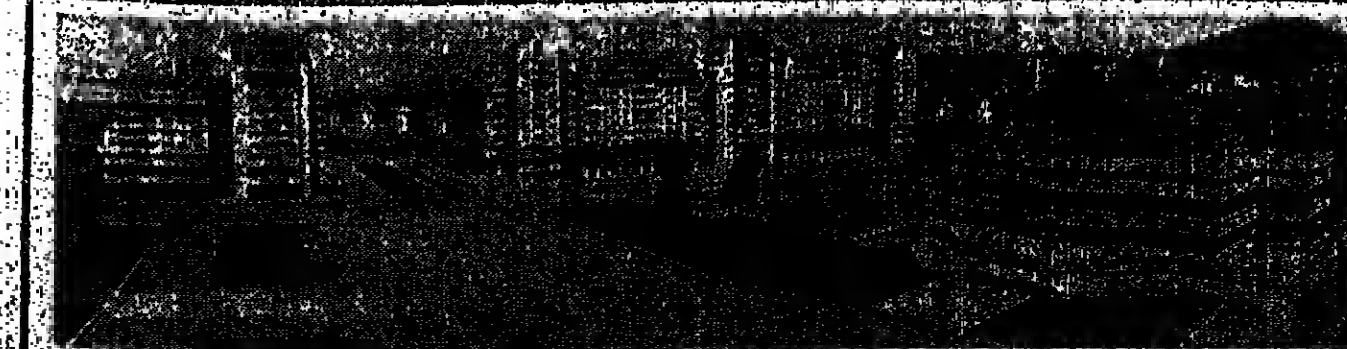
While the major branches of material production were concentrated throughout the country, the small industry developed autonomously, more particularly in the rural area and in towns with a low potential and local resources, recoverable materials and manpower were highly capitalized with a view to better meeting the needs of the national economy and the population's requirements for consumer goods.

While socialist industrialization was being achieved, action was taken for the building of an intensive-type, highly efficient agriculture, with production rationally increased, and the farmers' working and living conditions improved. The Romanian head of state said, pointing out that the cereal production of the last two years — of over 80 million tons — were the largest in the country's history.

The RCP and Romanian state leaders pulled socialist Romania's achievements in the development, diversification and updating of the learning system as a whole, of health care, of cultural-educational activities in all parts of the country. Romania's President also referred to the people's councils' tasks in fulfilling the strategic goals set by the Thirteenth RCP Congress, the programmes for the socioeconomic development of all counties, cities and communes, for the application of the socialist principles of self-management, self-sufficiency and self-administration.

(cont. on p. 3)

THE CITADEL OF ROMANIAN ELECTRONICS (PAGES 7-8)



THE HARMONIOUS DEVELOPMENT
OF ALL THE COUNTRY'S REGIONS
HARGHITA
OR A COUNTRY'S
MODERN-DAY
REBIRTH
(PAGES 6-7)

MEETING OF THE EXECUTIVE POLITICAL COMMITTEE

The Executive Political Committee of the CC of the RCP held a meeting on Friday, February 22, under the Chairmanship of Nicolae Ceausescu, General Secretary of the Romanian Communist Party.

The Executive Political Committee discussed general reports on the activity carried through in 1987 for the fulfillment of major economic indicators, as well as on the conclusion of the annual far production and projects under the 1988 plan in industry, investment and construction.

During the meeting, the Party General Secretary, Nicolae Ceausescu, requested that all conclusions should be drawn from last year's activity and shortfalls. The need was emphasized for action to be taken to attain planned parameters in all economic units, as well as in the up to be put on time, to use machinery, equipment and installations at the highest levels of efficiency, to continuously update fixed assets, to perform on-time, quality overhauls operations with a view to ensuring a smooth run of the entire production activity.

President Nicolae Ceausescu also stressed the need to cut the consumption of raw and subsidiary materials, of fuel and energy and to boost productivity, in line with the provisions of the economic programme. In fact, to rapidly conclude 1988 contracts, achieving that conditions were in place for the fulfilment of the important tasks set for the coming year.

Discussing the report on the evolution of prices and tariffs in 1987, the Executive Political Committee assessed the situation in this area as follows: prices and tariffs maintained last year below the planned level. In broad lines, prices were maintained at the same level as in some fields, and in others there was a price rise over the interval.

The Executive Political Committee further discussed a report on the results of the annual census taken on February 1, 1988; annual head in agriculture as a whole increased with most species.

Analysing the results covered, the Executive Political Committee considered them unsatisfactory, more particularly with cattle breeding, which are below possibilities, and the requirements of the new agrarian revolution.

In connection with the question addressed, the Executive Political Committee endorsed a programme of measures for livestock in 1988.

The Executive Political Committee also heard a report on

the application of the provisions of the recent decree on amnesty granted for a number of offences and the reduction of sentences.

The Executive Political Committee considered that measures taken upon the initiative and proposal of the Party General Secretary, Nicolae Ceausescu, to amend with the humanitarian policy promoted by the Romanian party and state. The resolution was well received by public opinion in this country and enjoyed strong reverberation abroad.

During the meeting, the Party General Secretary proposed that the legal provisions concerning the death sentence should be reexamined, so that it would be maintained exceptionally, for a limited number of highly serious offences against state security and the country's sovereignty.

The Executive Political Committee further analysed a report on the evolution of the major demographic phenomena in 1987. According to the data in the report, the birth rate last year registered a positive cause as against 1986.

The Executive Political Committee requested the Higher Health Council, the Ministry of Health, the health directorates and the entire medical and nursing staff to work most responsibly for the unwavering fulfilment of the party and state policy in the demographic area.

The Executive Political Committee also examined a report on the activity of solving the proposals, intimations, complaints and applications of the working people addressed to the party leadership by local party and state bodies, to mass and public organizations, to the press, the radio and television.

Approving the report, the Executive Political Committee decided that it should be submitted to the plenary meeting of the Party Central Committee for approval.

RECEPTION BY THE PRESIDENT OF THE REPUBLIC

G. G. VEDERNIKOV, Vice-Chairman of the Council of Ministers of the USSR

On Friday, February 22, RCP General Secretary Nicolae Ceausescu, President of Romania, received G.G. Vederikov, Vice-Chairman of the Council of Ministers of the USSR, who visited Romania.

During the interview, the sides referred to the relations of friendship and collaboration between the two countries and peoples, which continuously grow and strengthen, in the spirit of the understandings established on the occasion of the summit.

In this context, the sides underscored the possibilities for a further expansion of the economic, technological and scientific collaboration, of cooperation in aid and specialization of production, for enhancing and expanding the commercial exchanges, upon mutually advantageous bases, between Romania and the Soviet Union.

STATEMENT

ON THE ECONOMIC RELATIONS OF THE SOCIALIST REPUBLIC OF ROMANIA WITH THE UNITED STATES OF AMERICA

In connection with the US government's February 28 statement on the most-favoured-nation clause status, the Romanian news agency - AGENPRES - is empowered to state the following:

The Socialist Republic of Romania has always worked for the development of economic, technical, scientific and cooperative relations with all states, whatever their social system, without any conditions, on the basis of the principles of full equality, respect for national independence and sovereignty, non-interference in internal affairs and mutual advantage.

In conformity with tangibly recognized international norms and with the provisions of the General Agreement on Tariffs and Trade (GATT), Romania has always been based on the understanding of the General Agreement on Tariffs and Trade (GATT), which is a violation of the principles and norms of international relations, of the commercial agreement, and against the rules of GATT to which both countries are signatories.

Before this violation, Romania has informed the US government that it no longer accepts the renewal of MFN clause endorsement on the basis of the non-violation of MFN clause endorsement, and asked that talks open for the development of the economic ties under the provisions of a general commercial agreement between the Socialist Republic of Romania and the United States of America.

Under commercial agreement between the Socialist Republic of Romania and the United States of America, Romania has entirely fulfilled its obligations under the agreement and worked for the development of the economic ties between the two countries. In the USA, by referring to the unilateral adoption of Jackson-Vanik amendment, has made the annual granting of the

clause contingent upon a number of political demands, which is an inadmissible interference in Romania's domestic affairs, and which will be taken into account in the relations between Romania and the United States of America.

Moreover, came adverse effects, hostile to the development of the Romanian-American ties, used the annual renewal of the clause as a means to hinder and interfere in the internal affairs of Romania. So, the discussions on the clause become an obstacle in the way of promoting bilateral ties.

The Romanian government has repeatedly drawn the US government's attention that Romania will no longer accept such an approach to the relations between the two countries, which is a violation of the principles and norms of international relations, of the commercial agreement, and against the rules of GATT to which both countries are signatories.

Before this violation, Romania has informed the US government that it no longer accepts the renewal of MFN clause endorsement on the basis of the non-violation of MFN clause endorsement, and asked that talks open for the development of the economic ties under the provisions of a general commercial agreement between the Socialist Republic of Romania and the United States of America.

Under commercial agreement between the Socialist Republic of Romania and the United States of America, Romania has entirely fulfilled its obligations under the agreement and worked for the development of the economic ties between the two countries. In the USA, by referring to the unilateral adoption of Jackson-Vanik amendment, has made the annual granting of the

highlighted the need for new actions to be initiated, meant to ensure the equitable implementation of the cooperation goals agreed upon, of the provisions to the long-term programme for the development of economic, technological and scientific collaboration between Romania and the USSR until the year 2000.

The sides considered that a sustained promotion of Romanian-Soviet collaboration was to the advantage of and served both countries and peoples, the cause of socialism, progress and peace.

On July 3 Romania's MFN status will expire, that the status will be increased, and that other economic and financial measures will be taken in its relations with Romania.

In consideration of the measures that the USA has announced, the Romanian government states again that it does not wish to have the MFN clause subject to the Jackson-Vanik amendment and that it will analyze for its part the problems of the application of the MFN clause granted to the USA, of the duty and other facilities deriving therefrom for the US imports in Romania.

The Romanian government takes the view that representation of the two countries should meet as soon as possible and discuss the future ways of development of the commercial exchanges and the economic cooperation between the two countries.

The Socialist Republic of Romania will take action as it has done until now for the expansion of the Romanian-US economic relations on the basis of the generally recognized principles of international law, equality of rights and mutual advantage.

Almanac expresses its belief that the United States of America will show a constructive spirit of cooperation that will find fruitful solutions and remove all obstacles to the development of the Romanian-American ties, for the benefit of the two countries and peoples, of the cause of international peace and cooperation.

STATEMENT BY THE PRESIDENT OF THE REPUBLIC NICOLAE CEAUȘESCU

(cont. from p. 1)

In that context, the speaker stressed that all people's efforts should be based on their own budgets, and provide for a continuous rise in incomes to cover spending and ensure self-financing and contribute a certain amount of their incomes to the state's centralized budget.

The Romanian head of state spoke at length about the steady urbanization that took place in Romania at the same time with industrialization, showing that the number of towns had grown from 185 to 237, and that the urban population had increased from 7,100,000 to 11,900,000, or 51 per cent of the total population. To solve the problems that this phenomenon had entailed, a wide-ranging urban and rural re-development and modernization programme was made for a longer period of time to the year 2000.

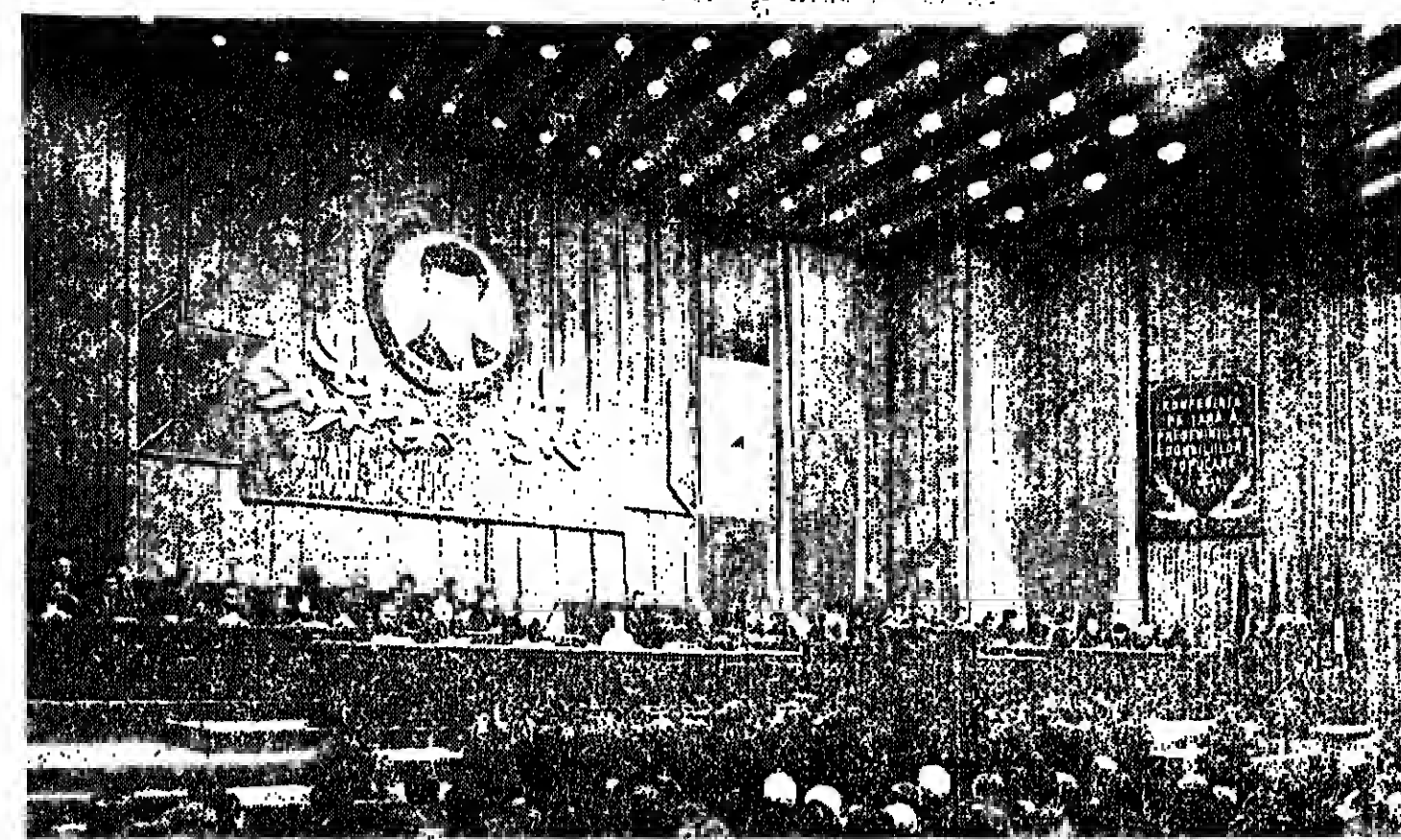
In consideration of the fact that some complex and rural settlements had been established in this country, the number of Romanians in each county and the number of inhabitants of each commune must be established before the end of the year. The aim is to have larger communes with a population of at least 3,000, whereas the present number of rural settlements is to be reduced to a three-stage process due to end in 2000. As part of this process, the 538 communes where agricultural activity operates at present are to be reorganized into larger towns before the year 2000.

This is the way to radically win out the major differences between towns and villages, to bring the working and living conditions of the working people in the countryside closer to those in towns, to provide for the herculean development of the whole country, to more powerfully homogenize our socialist society, to create a single working people, to build a free future, of socialism and communism, Nicolae Ceausescu highlighted.

The speaker showed that in their activity as a whole, the people's Romania should introduce a new, revolutionary work style, continuously strengthen the links with the people, as a requirement for a proper activity and the uninterrupted development of revolutionary, worker democracy, to achieve a higher sense of responsibility and receptivity to the problems posed by citizens, should work to strengthen order and discipline in the country, to ensure a free, independent and dignified existence.

Noting that strong political, economic and military contradictions were maintained and developed in the international life, that certain steps had been taken in addressing certain problems through negotiations, the President showed that if could be said that no radical change had occurred in the way of thinking and acting to international life. The speaker stressed that the new thinking, the new approach, and the settling various complex world issues were only of the beginning and were advancing with great difficulty.

Referring to the signing of the political-military agreement between the Soviet Union and the United States of America, the President stressed that the signing of this agreement was a historic step, that it showed the willingness of the two superpowers to settle their differences through negotiations, that it was a step towards the achievement of a new world order, that it was a step towards the achievement of a new world order, that it was a step towards the achievement of a new world order.



and working. Indeed, there is a talk saying that goes: There are black sheep in every flock. However, our political-educational activity, our activity of cultivating love for work and for the homeland, of building our own life in the countryside closer to those in towns, to provide for the herculean development of the whole country, to more powerfully homogenize our socialist society, to create a single working people, to build a free future, of socialism and communism, Nicolae Ceausescu highlighted.

The speaker showed that in their activity as a whole, the people's Romania should introduce a new, revolutionary work style, continuously strengthen the links with the people, as a requirement for a proper activity and the uninterrupted development of revolutionary, worker democracy, to achieve a higher sense of responsibility and receptivity to the problems posed by citizens, should work to strengthen order and discipline in the country, to ensure a free, independent and dignified existence.

Noting that strong political, economic and military contradictions were maintained and developed in the international life, that certain steps had been taken in addressing certain problems through negotiations, the President showed that if could be said that no radical change had occurred in the way of thinking and acting to international life. The speaker stressed that the new thinking, the new approach, and the settling various complex world issues were only of the beginning and were advancing with great difficulty.

Referring to the signing of the political-military agreement between the Soviet Union and the United States of America, the President stressed that the signing of this agreement was a historic step, that it showed the willingness of the two superpowers to settle their differences through negotiations, that it was a step towards the achievement of a new world order, that it was a step towards the achievement of a new world order, that it was a step towards the achievement of a new world order.

United States of America and NATO to develop and maintain 1,600 nuclear missiles in Europe, run counter to the security between the Soviet Union and the United States on several types of nuclear weapons, actively stepping up the nuclear arms race in Europe, heightening the danger of a nuclear war, of destruction of Europe and of the whole world, Nicolae Ceausescu stated.

On behalf of the Romanian people the President called on the NATO countries and the United States of America, as well as on the Soviet Union and the Warsaw Pact countries to give up improving and developing new nuclear arms in Europe, to work for the removal of all these weapons from the European continent, and the whole world. This is the interest of each European nation, of their free and independent existence.

Recalling that Romania had most resolutely declared for the elimination of chemical and other weapons of mass destruction, the President said: We are of the opinion that there is a clear interdependence between the shorter-range nuclear missiles and the chemical weapons - and that by any action should be taken for their complete liquidation. Nicolae Ceausescu also reiterated his country's stance on the substantial reduction of conventional weapons, the beginning of direct negotiations between the Warsaw Pact and NATO on their complete abolition, the dismantling of military bases and the withdrawal of foreign troops from the territory of other states, the renunciation of wide-scope military intervention and support, as the frontiers of other countries.

We think that a 100-150 km corridor should be established between the two military blocs, where troops and armaments, especially tanks, artillery, mechanized troops, aircraft should be withdrawn, leaving a free zone, free from any military presence, free from any military presence, free from any military presence.

Underlining that Romania favored the conclusion of the European meeting in Vienna, with the best possible results, and improvement of the relations and of the cooperation of

the European countries in the economy, technology, science, and other areas, President Ceausescu said that his country was for an approach to the humanitarian questions and their dual settlement, starting from the assurance of the fundamental rights of each people, first of all of the right to work, to education, to life. Special attention should be paid to the international conference on the Middle East, to the situation created in the Middle East, to the situation created in the Middle East, to the situation created in the Middle East.

Calling attention to the fact that there are European countries where fascist organizations have renewed their activity, Nicolae Ceausescu said: It is our view that it is more necessary than ever before for the European countries to strengthen their cooperation even more to firmly fight fascism, to ensure the security and stability of the European continent, to ensure the security and stability of the European continent, to ensure the security and stability of the European continent.

Referring to Romania's firm stance in favour of a broad development of cooperation among all the states in the Balkans, for the transformation of the region into a zone of peace and stability, the President stressed that the recent Belgrade meeting of Balkan ministers for foreign affairs, the understandings reached on the occasion were of great importance, proving that the Balkan countries are ready for new-type relations among the Balkan countries.

In this respect, the speaker showed we think that the process of Romania and Greece regarding the organized and regular meetings of the Balkan countries in Bucharest are of great importance, proving that the Balkan countries are ready for new-type relations among the Balkan countries.

ing cooperation in Europe and throughout the world. Speaking up for the elimination of the use of force from international relations, far and wide, the speaker stressed that the situation created in the Middle East requires that every-thing possible be done for a comprehensive solution, which should ensure the settlement of the Palestinian people's question in the first place, on the basis of its right to self-determination, to an independent state of its own, as well as for the assurance of the integrity and sovereignty of all the states in the area, Israel's included.

At the same time, a rapid end should be put as soon as possible to the war between Iran and Iraq which caused both peoples heavy damage and casualties.

It is in the same spirit that we consider that other disputes, including those in Central America, Indochina and other parts of the world, should be solved.

In the final session of his speech, President Nicolae Ceausescu referred to the serious international economic situation which adversely affects all the peoples, more particularly the developing countries as a consequence of the irredeemable financial crisis of the world economy, of the irredeemable financial crisis of the world economy, of the irredeemable financial crisis of the world economy.

In this respect, the speaker showed we think that the process of Romania and Greece regarding the organized and regular meetings of the Balkan countries in Bucharest are of great importance, proving that the Balkan countries are ready for new-type relations among the Balkan countries.

INTENSIVE GROWTH

Romania's economic strategy in this five-year plan period and on a long term starts from the idea that the opportunities for extensive growth have been virtually exhausted. As a result of this, development programmes are integrally oriented towards an intensive-type growth, seen as a complex process meant to bring the economic and social structure changes in the basic correlations of reproduction and economic growth between the qualitative and quantitative sides and especially between the factors of development.

The process of giving priority to the qualitative sides of the economic growth in carried out on the basis of the achievements noted in the past five-year period, when the branches providing the material and technical support of the productive activities in the economy were powerfully developed. Over 1969-1980, the highest growth rates were recorded by mechanical engineering and metal manufacturing as well as by the chemical industry, which absorbed the dynamics of the industrial production as a whole. In 1980, these basic industrial branches had achieved significant growth rates, exceeding the average of the entire economy.

minial manufacturing - accounted for 34.4 per cent of the country's industrial production.

Romania's development plans for the ongoing five-year plan period focus on the implementation of a vast programme of streamlining the economy which is to provide the balance and dynamics of the production process, to improve the branch, sub-branch and local structures so that the economic and social complex may operate at a highly efficient level.

Priority goes to industry. The processing branches will undergo thorough qualitative changes, incorporating advanced technologies at a fast pace. After 1980, over 80 per cent of the marketable production is expected to be produced by the mechanized engineering industry, which will be the mainstay of the industrial production. The average rate of growing production in this branch is planned for 1980-1985, with a peak of 1980-1981, at 10.5 per cent. The average rate of growing production in this branch is planned for 1980-1985, with a peak of 1980-1981, at 10.5 per cent.

plant production and animal breeding is to be accelerated roughly by the end of this millennium. In 1980, agriculture will have 150,000 tractors, that is one tractor for 65 hectares of arable land.

The modernization of the Romanian economy in the current stage relies on a vast activity of scientific research, technological development and introduction of technical progress. Demographic scientific research currently provides over 90 per cent of the country's scientific and technological progress.

On the basis of the programme of organizing and modernizing production processes, according to calculations, labour productivity will increase by 150 per cent by the end of the five-year period, with a peak of 1980-1981, at 10.5 per cent. The average rate of growing production in this branch is planned for 1980-1985, with a peak of 1980-1981, at 10.5 per cent.

cont. from page 1

In the opening of the Conference the floor was taken by President Nicolae Ceausescu. The proceedings of the Conference were conducted on Friday, March 4.

In the system of Romanian democracy the people's councils are the bodies elected by citizens meant to ensure the actual exercise of local power by citizens for citizens.

The current conference was held in the year that marks two decades since Romania's administrative-territorial reorganization, a significant act for the balanced, harmonious development of all the country's regions, through the rational distribution of the productive forces and the turning to better advantage of material and human resources.

Today, the period that has elapsed since the administrative-territorial reorganization of Romania has demonstrated the efficiency of the measures taken for the administrative-territorial reorganization of Romania, which has demonstrated the efficiency of the measures taken for the administrative-territorial reorganization of Romania.

Councils Chairmen, the country conferences of municipal, town and commune people's councils, and communist people's councils, which have taken place, to a spirit of extreme responsibility, analyzed the results scored in each urban and rural locality in the entire economic and social activity, and dwelt on the shortcomings manifested in their work. Numerous proposals were advanced aimed at improving the working style and methods of people's councils, of their working bodies, of the deputies, so that the local bodies of state power and administration may use to full advantage the possibilities of a higher quality of everyday life.

The current conference was held in the year that marks two decades since Romania's administrative-territorial reorganization, a significant act for the balanced, harmonious development of all the country's regions, through the rational distribution of the productive forces and the turning to better advantage of material and human resources.

THE CITADEL OF ROMANIAN ELECTRONICS

There were two essential moments in the development of electronics in Romania — the first moment, placed at the end of the fifth decade and having in view consumer goods, and the second in 1967, which marked the beginning of the production of high-class equipment and parts. This second moment is defining of the Romanian policy in the economic field, a policy whose fundamental purpose is the intensive development of industry. This development required and still requires a radical change of the production bases, a rapid passage to the sectors

determining the essence of the contemporary technical and scientific revolution — the automation of production processes and rationalization of the economy. That is why the technological policy consistently pursues the creation of an electronic infrastructure — the common factor of automation, informatics, radiocommunications, artificial intelligence — precious instruments that Romania creates and perfects for the progress of industry, of the economic and social life.

THE CREATION OF THE STRUCTURES

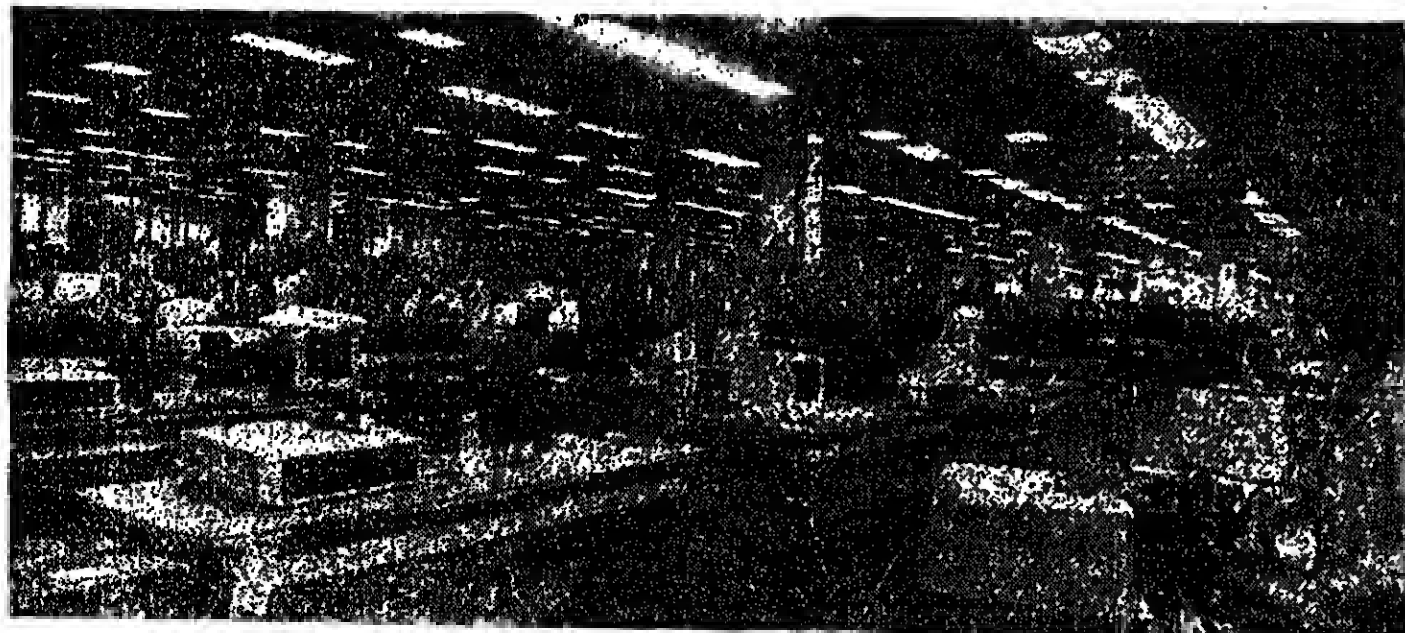
Viewed as a scientific activity and as an industrial creation field, Romanian electronics offers a vast and complex picture. It was practically set up two decades ago through an ambitious programme of equip-

ping the economy with modern computer and data processing equipment which provided for the organization of the computer and professional electronics parts production in the country. The first question to be

solved was that of creating adequate scientific bodies and producer enterprises. Research institutes for scientific domains were founded — electronics and computer technology, automation — and the research activity in all higher educational institutes was expanded. In a joint effort, all higher educational institutes were organized, in a joint effort, all these units started giving solutions and original designs, in the industrial enterprises that were created at the same time.



Electronics industrial high school. Based on only as regards the instruction of the pupils but also their hands-on training, an activity as part of which the pupils perform work useful for the electronic industry of the Ploiesti industrial area. In the field of the high school, an expert-consultant team is also the sole expert in the country of connection cords and watchmaking tools for computer technology. The remarkable practical training of the pupils prompts the enterprises of the Ploiesti area to engage them immediately after graduation, also already during their high school years they carry out training hours in the electronic equipment repairs sections.



"ELECTRONICA" IN THE WORLD

The products manufactured by Electronica Enterprise are in demand in tens of countries. Sixty per cent of the unit's production is export-oriented. The offered to foreign beneficiaries range of products and services includes stationary and portable radio sets, radio-assisted recorders, cassette centers, audio systems, Hi-Fi or standard loudspeakers, black-and-white and color tv sets, tv monitors, subassemblies and parts, audio and video equipment manufacturing lines, turn-key technical assistance and servicing.

Among the factors ensuring the products' competitiveness on the foreign market we should mention the rapid modernization of the fabrication lines, the qualitative and quantitative expansion of the design department and, naturally, the quality of the electronic components used. The shortening of the assembly terms for the products required by foreign partners currently makes it possible to turn out less complex units in a matter of weeks and more sophisticated ones in three months. In the case of video equipment, the cycle lasts between three and six months for high performance products. Besides the flexibility shown towards the dynamics of the foreign market, another factor contributing to ensuring the competitiveness of exports is the compliance with international norms and standards, with the

strategies required by the most potent tests conducted in the USA, Britain, Ireland, West Germany, Czechoslovakia and other countries.

The design has sold numerous products. The high performance radio sets to vintage cases have enjoyed remarkable commercial success in the Netherlands, the USA, Switzerland, France, while the radio sets fitted with digital display clocks have been highly appreciated in the USA, France, Yugoslavia, Czechoslovakia, Chile and West Germany. Portable tv sets have been in demand for more than 10 years, in the USA, West Germany, Canada, Britain, People's China, Austria, Ireland and the stationary ones in People's China, Poland, Czechoslovakia, Cuba, France and Jordan. The large amounts of products delivered to West Germany and Czechoslovakia have called for the operation of service teams of the enterprise in these countries. Besides the direct deliveries, Electronica also sells sets of components to be assembled in Greece and Britain, and has taken part in the construction of a tv set factory in the DPR of Korea and of an assembly line in Denmark. Thanks to special qualities and performance of the Electronics radio equipment, Iraq has requested the unit to fit the interurban network with radio sets, amplifiers and audio systems.



A REAL TECHNOLOGICAL LEAD

In the neighborhood of lakes Tei and Plumbuita, in the area north of Bucharest, Ploiesti became the capital of Romanian electronics. The first step in the history of this sector was written in the summer of 1967 when, alongside the old radio receiver section which was in prospect since "Electronica" in 1964, the first Romanian electronic enterprise — the Ploiesti Electronic Enterprise — was founded. The area was developed from 1968 onwards, when the first computer-aided design system was put into operation. The first computer-aided design system was put into operation in 1968, when the first computer-aided design system was put into operation.

stations were laid for URUC, a unit meant for the maintenance and repair of computers and peripheral electronic equipment, while setting up a unit for the repair of electronic equipment. The first computer-aided design system was put into operation in 1968, when the first computer-aided design system was put into operation.

CONTROL DATA. The first computer-aided design system was put into operation in 1968, when the first computer-aided design system was put into operation. The first computer-aided design system was put into operation in 1968, when the first computer-aided design system was put into operation.

FELIX 5000

This is the name of the new computer recently introduced into mass production. It has a wide range of applications in management, technical-scientific research and computer-aided design. Conceived and built by a team of specialists from the Bucharest Computer Enterprise, FELIX 5000 is fitted with an internal memory twice that of Felix 312 (5000 is five times bigger), is far more reliable and has a higher working speed — about 300,000 operations per second. Retaining the progress made in this field, FELIX 5000 incorporates a number of modern technical solutions, standing out among which is the achievement of the control unit with 20 logical planes versus the 2,500 component planes of F-312, as well as the fact that the control and error diagnosis panel has been replaced by an "intelligent" console providing an easier and safer operation of the whole computer system. The new computer is three times smaller than F-312, which accounts for a reduction of manual labour, of the metal inputs (by 70 per cent) and of the energy consumption (by 75-80 per cent).

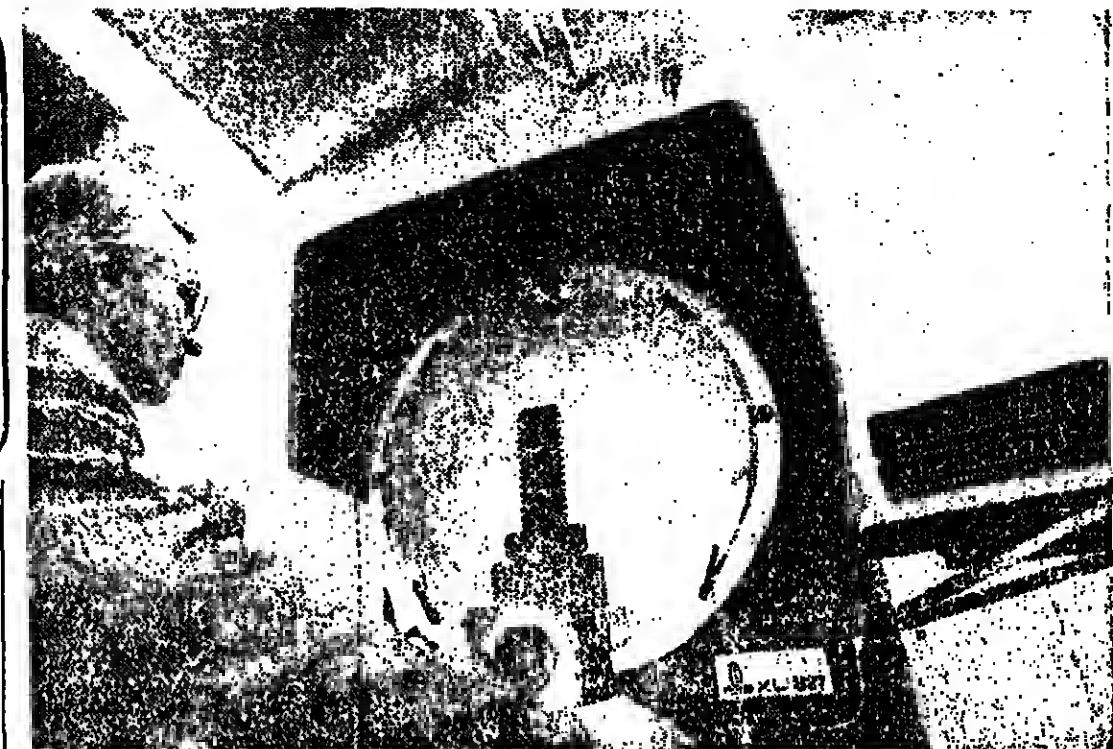


COMPUTERS AND THE NATIONAL ECONOMY

This ingenious development made possible the introduction of management systems by means of automated data processing means in 5,000 industrial and construction enterprises and research units. This is in fact the purpose of setting up such an industry in Romania. The computer programme and monitor the production, constructive architectural designs, re-

duces the data required by researchers in various domains, etc. In Romania today there are hundreds of computer stations and centres equipped with modern computers — Felix 512, 516, 518. Control systems for technological processes, made up of an independent 100 computer, four ECAROM 200 automation installations and six

microprocessor-controlled digital display devices, have been introduced in the chemical industry, for instance. Process computer control systems have also been installed in cement factories, 350 div power units, iron-and-steel works, electronic enterprises and petrochemical plants, and have been exported to the GDR, Pakistan, Egypt, Iraq and other countries.



DYNAMISM AND COMPETITIVENESS

Therefore a real industry turning out a wide variety of products, from computers of various types and powers, automation equipment, control and measure instruments, sophisticated radio-communication equipment, to kinoscopes and the new cinematographic sets was created. The range of computer equipment has continuously grown (besides the medium-capacity computers of the FELIX family, Romanian-designed process computers, mini and microcomputers, peripheral equipment) have been assimilated.

In 1977 Romania was the first socialist country homologating internationally a minicomputer family highly demanded by

Computer Technology and Automation. Products making about 150 families of products in over 20,000 types and sizes. The Ploiesti area itself concentrates 61 per cent of the country's electronic industry and more than 50 per cent of the computer technology. Since 1967, the output of this sector has grown about five times and trade relations with 23 states have been developed.

IPRS-BĂNEASA THE MARK OF QUALITY

The Enterprise of Radio Parts and Semiconductors of Băneasa, better known as IPRS, is today, 23 years after its setting up, a standard-bearer of technical progress in the Romanian economy.

Quality, innovation and flexibility are the grounds of the competitiveness of the products bearing the registered trademark IPRS. Through its basic products — electronic components both passive (condensers and active (diodes, transistors, thyristors, integrated circuits) — IPRS has become an indispensable, sole supplier of the national electronic engineering industry and of several other branches of electronics in 20 countries. The numerically-controlled machine tools, the automation and instrumentation installations incorporating microprocessors manufactured here, modern medicine would be handicapped without the apparatus bearing the trademark of the enterprise. The enterprise is involved in the development of nuclear programmes.

novo quite a lot to the work and creation of the IPRS people. Inter, where 800 technicians are used for manufacturing over 10,000 types and sizes of products, the performance is an ordinary one.

If at IPRS there is no workshop or research-design team, it is because these connected activities are part of the primary activities of all engineers working there, simultaneously with the implementation of production tasks. This original system underlies the conception, homologation and production for the first time in Romania, of the Schottky diode for computer feeding systems, of the series of modules with diodes, thyristors and transistors in typical constructions, of the technology of manufacturing high-power devices in plastic capsules (instead of ceramic cases), as well as of the technology of obtaining silicon chips with thin layers, a method used by few firms in the world.

PROSPECTS

The accumulations obtained in the introduction of automatic information systems and in the setting up of the national bank of generalization information resources, the new technical solutions for the interconnecting equipment within networks and for remote access to data, have the expansion of the electronic enterprise in the field of information systems. The objectives of the programme, developed by the enterprise, include the development of technical projects over 1981-1990 and the manufacturing of

the year 2000, which establishes concrete tasks concerning the growing utilization of cybernetic methods and modern computer technologies with a view to creating the unitary system of management, economic and social processes based on the national computer and data transmission network. The enterprise is also involved in the development of technical projects over 1981-1990 and the manufacturing of

IOAN BOICA

THE HARMONIOUS DEVELOPMENT OF ALL THE COUNTRY'S REGIONS

HARGHITA OR A COUNTY'S MODERN-DAY REBIRTH

The Harghita region, previously known especially for its mountain landscape of unique beauty, a region rich in forests and lumbering operations, in mineral springs and tourist resorts, became after 1988 — the year of the country's territorial reorganization — a county with an unprecedented economic development, with a powerful industry adapted to local conditions, with new constructions and an educational network meeting the needs of a modern economy and culture. An eloquent example of the effort to ensure equal opportunities to all citizens, regardless of nationality, for the accomplishment of their personal, conditions for the efficient exploitation of natural and human resources, for the harmonious combination of industrial and farm production, Harghita county demonstrates the success of the policy of balanced development of all production forces through the creation of a strong material and cultural basis in all the country's counties. The reportage published on these pages sets out to present a few ordinary sequences of this ongoing process.

FORESTS AND PERIOD FURNITURE

Gathering at Toplița as in a forest, trees from 22 forest operations spread all over the mountains. There is a team of lumbermen at each of these operations, headed by a foreman: Eugen Gheorghe at Harghita, Drăgoș Damir at Valdeasa,

Birgheanu Pavel at Bărbănt, Székely Emre at Lăneș, at the foot of the Călimani Mountains, Corpos Ioșif at Săcuză. They are the spark that ignites the engine of a whole industry, an industry which begins up to the forests of the Gur-

ghia, Călimani and Olăreș mountains with the tough and anonymous work of the lumbermen and ends with the chairs in which we all sit comfortably.

The Toplița woodworking plant processes 130,000 cu.m. of wood a year. In the beginning it used to produce mostly beech and resinous timber, but other workshops have gradually appeared which process the wood in a more refined and therefore more profitable manner. A thorough modernization of the plant started in 1985, following which a chair factory and a period furniture factory were commissioned at Toplița, at Gălbănt, apart from plywood, decorative veneer and panels are also manufactured now, while at the third school in Rădoșii village, Săcuză common combi-fabs and folding chairs are produced. And even though the people of Toplița do not have yet the ambitions of those who make whale furniture sales, they are no less proud when customers from France, West Germany, or the Netherlands order ashboards, chairs, garden seats and other such pieces which round off the furniture of our everyday life and homes.



THE KINGDOM OF MINERAL WATERS

More than 2,000 mineral springs of all kinds have been identified in Harghita county, but it is possible that their number may be larger. That this wealth can be a blessing as well as a nuisance can be seen as ascertained by the inhabitants of Pușcova, Săcuză, Tășnad and other places where, no matter how deep you may dig for "ordinary water", it is still mineral water you strike. The people have drinking water but no water for cooking, and washing the linen presupposes a whole alchemy (plenty of soda, lye etc.). It is very much like the story of the man who turned everything he touched into gold. A few happenings, funny like an anecdote, best synthesize this situation: a man from another county bought a cow from the inhabitants of Harghita; a few days later he phoned the cow's former owner and told him the cow was ill since it

would not drink any water... The man of Harghita divided him to give the cow mineral water to drink and then he would see... Naturally, the cow drank the mineral water, much to the despair of the one who had bought it. Well, a lot is being done in Harghita for catching, industrializing and learning to account these natural reserves. Mironcea Căsoașă enterprise for beer, spirits and mineral waters whose director, engineer Zoltan Magyar, has spent 14 of his 17 years of work at this enterprise. He has reason enough to affirm that he knows the county like the palm of his hand. That is precisely why he admits that "we still want ome mineral water, we can't help it, especially since it is hard to find out exactly how many springs there are and what their total water resources are". It is clear that he speaks from the rational point of view

of economic efficiency, not from that of natural abundance. Because there are also undiscovered springs, and amongst ones whose water is indeed wasted but whose industrial exploitation is far the time being ob-

jectively unprofitable from an economic point of view. Therefore the problems the enterprise has to solve are common ones: production, plan and results. The main areas of action are: horse (annual capacity 100 million liters), Săcuză (100 million) and Tășnad (100 million).

There is a great thirst for mineral waters with curative properties in the world at present. And it is obvious that the enterprise has to come with the tremendous domestic and foreign demand, which poses many problems of bottling and transportation to the most unexpected geographical regions.

At present, the industrial production of Harghita county is 80 times larger than in 1950; Harghita includes today units with impressive annual development rates: in the ferrous metallurgy industry, the annual rate is 12.8 percent, in the nonferrous metallurgy industry 11.8 percent, in the machine building industry — 19.8 percent, in the wood working industry — a traditional sector in this area — 5.3 percent, in the textile industry — 15.3 percent, the food industry — 8.1 percent etc. The whole output of 1988 can be achieved in less than two months, and that of 1988 in four days; the number of working people has grown in the last 25 years by about 59,000, while Harghita's products are exported to over 50 countries. Over 80 percent of the industrial production of the county is turned out in new units. The volume of sales is today 351.6 percent higher than two decades ago.

KNITWEAR ON FIVE CONTINENTS

The knitwear enterprise in Toplița has a sign on which is written "Tricolor". A brandy which here too is clothed in the cold dress of figures: 80 percent of its output is exported, so that at a certain moment the enterprise ranked third in the country among the 11 units of the kind.

In April 1989 when the enterprise was started up hardly anyone expected today's high performance: 15 per cent earmarked for export in 1988 and 80 per cent in 1987. Their products are demanded in the USSR, USA, Canada, Norway, Denmark, the Netherlands, Belgium, Great Britain, West Germany. Now we are working on the orders for the ongoing year. Thanks to the people's industriousness and skillfulness, "a good organization of work. More than two thirds of the models exported are an original creation: creation involves everyone". Knitting has long ceased to be a simple household occupation; it can be seen, it is an industrial branch which has deep roots in Harghita. The enterprise also has a wide range of products: sweaters, jumpers, trousers, socks, etc. "We produce everything that a woman can wear", says the director, Paul Marin, explaining to me, "We receive increasingly more complicated orders: more complicated people in means increasingly more diversified tasks. We have come to manufacture all possible knitted items: sweaters, jumpers, trousers, socks, etc."

Therefore, creation takes up only in the textile sector of the county, but also in the food, agricultural and mechanical sectors of the production. This was the aim of the plan: to have 70 colors on the pattern card, but the enterprise owners the respective departments registered in the pattern card now we have 100 colors registered in the pattern card.

ROMANIAN NEWS

FREE
SUPPLEMENT
TO NO
9 (518)
MARCH 4
1988

TRADITION AND INNOVATION IN COMPUTER TECHNOLOGY

In the field of computer technology tradition is comparatively limited, if we consider the fact that beside the basic hardware principles nothing can be looked upon as known, classical, definitely established. On the contrary, the unprecedented race for widening the scope of applications, the ever increasing demands not only of industry but also, to a growing extent, of social-administrative life in general, opens unlimited possibilities for innovation in this field. Thus, even if the dispute concerning the monopoly of computer competition in future is a nonsense, as has been agreed, the presence of computer technology in man's life tends to change the whole reality into a universe of information theory.

An already clear line is the present orientation towards professional personal computers (PC), a field in which research and development are in progress all over the world.

Alongside other industries, our specialized insti-

tutes and enterprises, on the basis of actual achievements, are trying at present to ensure a higher computer processing power with a view to replacing the 16-bit microprocessor with the 32 bit one in the first place.

Any specialist can easily see the advantages: increase of the microprocessor's clock work frequency, fast memory (cache), possibility of complicating the diagrams with special-purpose processors (coprocessors) and obviously, facilities for the configuration of the pipeline architecture ensemble. These improvements lead to virtual memory work, management systems for it, and implicitly to access to high-level languages.

The wide-scale application of personal computers can be achieved only through major innovations both of software and of hardware techniques, stress being laid, depending on the stage, either on constructional or on programming problems. Because the progress registered

daily by our understanding of nature, with the unveiling, in the most different fields of human interest, of complex, interconditioning structures governed by the law of large numbers, necessarily means their interpretation through computer technology alone, and only by increasing the performances of the new structures on the level of super and hyper-computers (billions of operations per second).

CIETC
THE
INDUSTRIAL
CENTRAL
FOR
ELECTRONICS
AND
COMPUTER
TECHNOLOGY

Endowed with powerful research and production facilities, the Industrial Central for Electronics and Computer Technology in Romania, of which we shall offer a brief presentation, represents an open field

for innovation, providing real and multiple possibilities for cooperation and exchange on the most diverse specific questions to all those interested.

Dr. eng. VASILE BALTAC ■
General Manager of CIETC



On the area of the great Wood Working Enterprise in Bărbănt, at the same time with the bringing into operation of the best-producing plant, the expanding and modernization projects for new units meant for the making of wood prefabs and furniture have been completed. All the necessary conditions have been created for the achieving of the planned parameters and for the fulfillment in time of all the contracts concluded with the foreign partners. By the conclusion of these works, over 1,400 new working places were ensured.

In the 20 years that have passed since the administrative territorial reorganization of the country, in Odorhele-Secuieni over 8,500 apartments have been put at the disposal of working people.

Handwritten text in Arabic script, possibly a signature or a note, located on the left margin of the page.

CIETC - A WINDOW ON THE FUTURE

Under the present economic and social circumstances, the general concept of "industry" implies (and deserves) an extensive fundamental analysis, within which an interesting research line could follow the different scientization degrees of the current technology. From this point of view we would get a hierarchization scale on the lowest level of which would be collar manufacturing, and at the top, no doubt, electronics and computer technology.

Within the Ministry of Electrical Engineering, even though its sphere of concern exceeds by far the average standard of technical-scientific knowledge, the Industrial Central for Electronics and Computer Technology (CIETC) operates, for sure, on a very high level, if we consider the fact that the essence of work in its enterprises and institutes virtually represents the materialization - sometimes exclusive - of some sui-generis mathematics, physics, chemistry, structural biology, physiology and even applied linguistics principles.

Prof. GHEORGHE SAVA
Head of the Technico-Scientific Propaganda
Department of ICPE



NEW

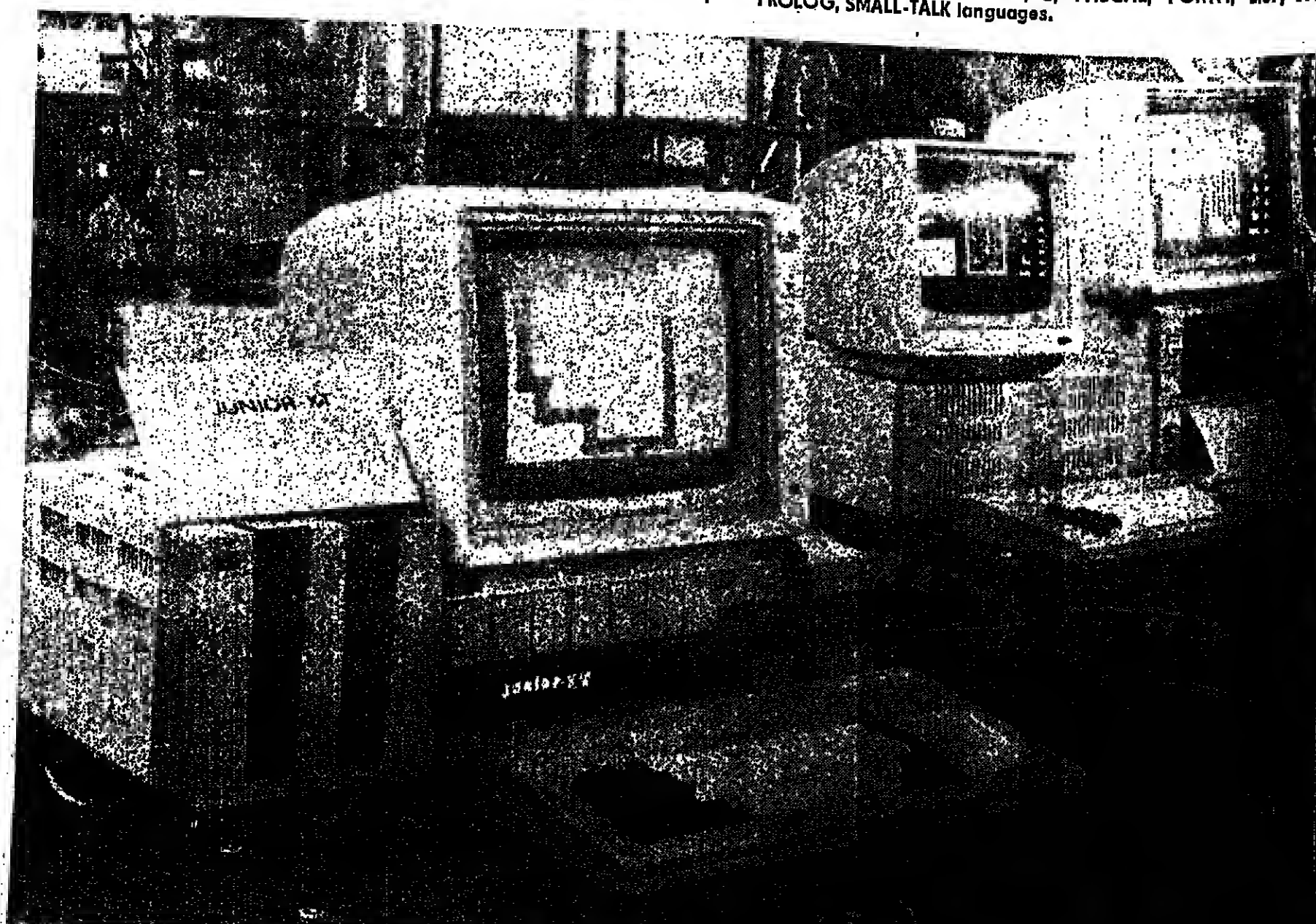
JUNIOR - XT PROFESSIONAL PERSONAL MICROCOMPUTER

UNIVERSAL MICROSYSTEM COMPATIBLE WITH
THE IBM-PC/XT MICROCOMPUTERS

WE ARE OFFERING YOU THE LATEST
DEVELOPMENT OF THE PERIPHERAL EQUIPMENT
ENTERPRISE - IEPER WITHIN CIETC

TECHNICAL DATA

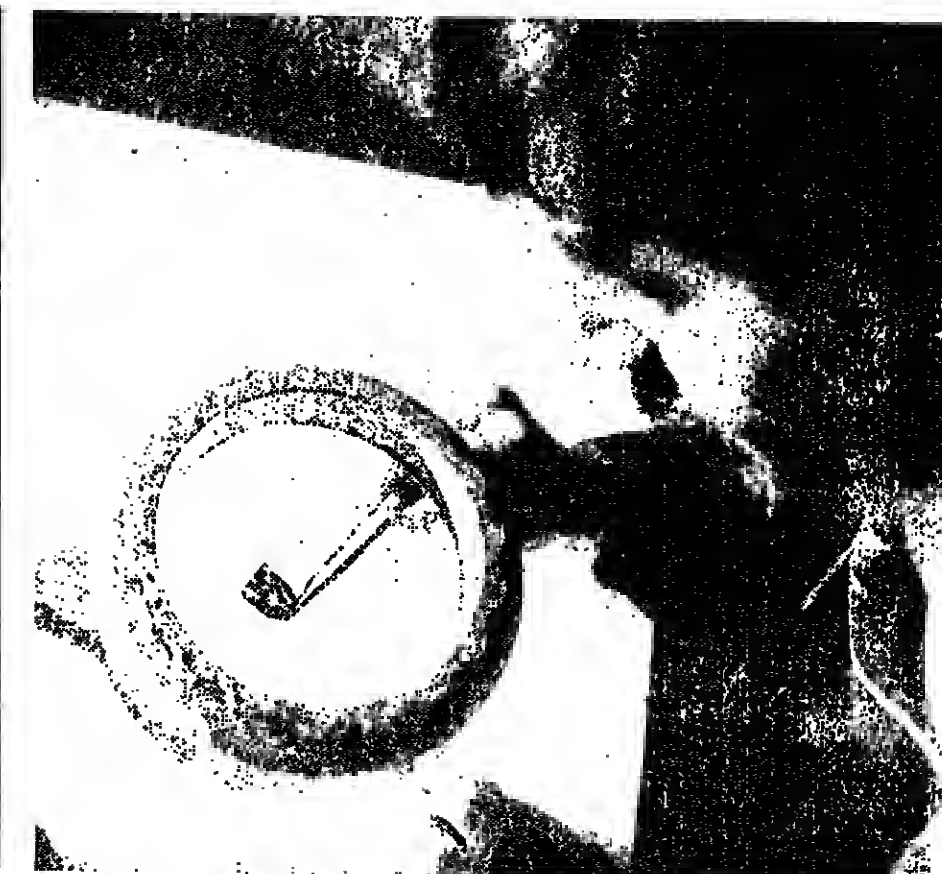
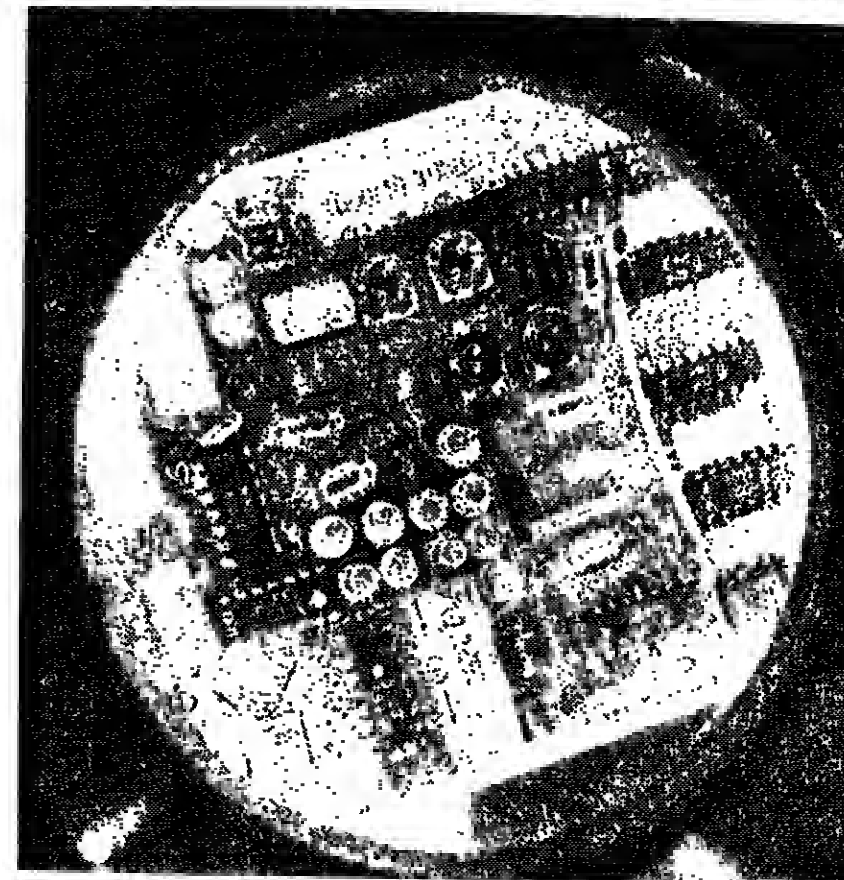
- 256-640 kb RAM
- 1 8006 microprocessor and 1 0087 mathematical coprocessor
- 16 to EPROM
- two RS-232 C (280-510) serial interfaces
- parallel interface for graphic or alphanumeric printer
- external memory: two 5.25" floppy disc units
- MS-DOS operating system
- BASIC interpreter
- Compiler for: BASIC, EDISON, C, PASCAL, FORTH, LISP, LOGO, PROLOG, SMALL-TALK languages.



THE CITY OF ELECTRONS

CIETC - a real city of electrons - is a modern industrial central; modularly conceived as an interconditioned structure, it groups in one place the most important research and production units. From another point of view, the profile and area of the various sectors it coordinates

ensure the quasi-totality of necessary products both on the horizontal and on the vertical. CIETC manufactures the following main groups of products:



ACTIVE AND PASSIVE ELECTRONIC COMPONENTS

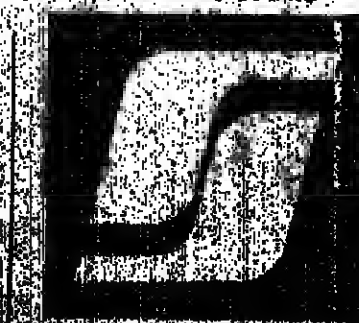
- | | |
|--|---|
| <ul style="list-style-type: none">• Low, medium- and high-power silicon diodes• metal solid-state Schottky diodes• normal and field effect transistors• electrolytic and paper capacitors• drop and tube tantalum capacitors• variable solid dielectric and semiajustable air capacitors• normal and fast thyristors• high-power thyristors• linear ICs• MOS and CMOS ICs (in PMOS and NMOS technologies)• Silicon photodiodes | <ul style="list-style-type: none">• phototransistors• resistors• mono- and three-phase rectifying bridges• diacs and triacs• TTL and ICL digital circuits• attenuators• potentiometers• passive-resistive integrated circuits• negative temperature coefficient thermistors• varistors• analog switches• LEDs• temporized fuses |
|--|---|



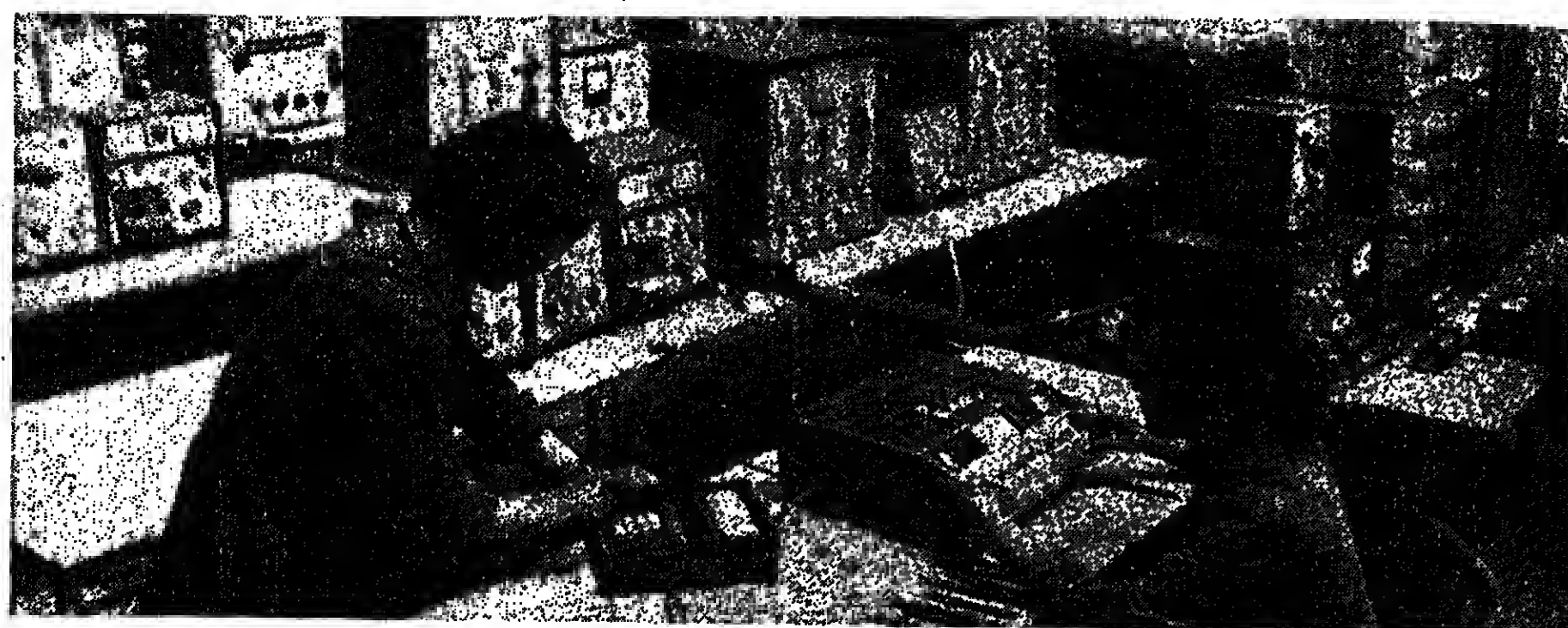
REMEMBER A NAME! CCSIT-S

THE CENTER FOR SCIENTIFIC RESEARCH
AND ENGINEERING FOR SEMICONDUCTORS

- Research and development programs:
- high-performance solid-state electronic components
 - test and control equipment for semiconductor technology
 - specific materials and technologies for semiconductor
 - quality certification of solid-state devices
 - standardization in the



field of semiconductor industry

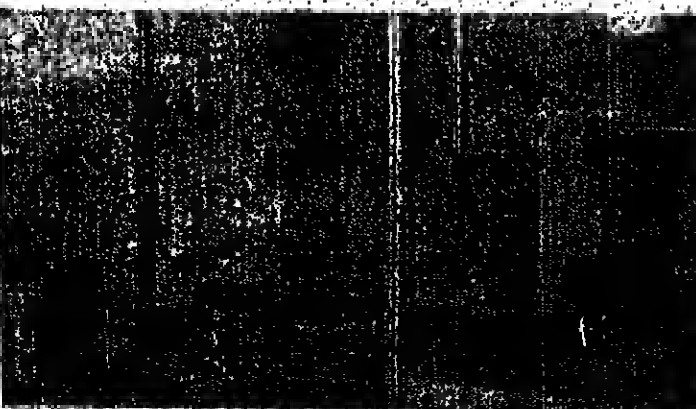
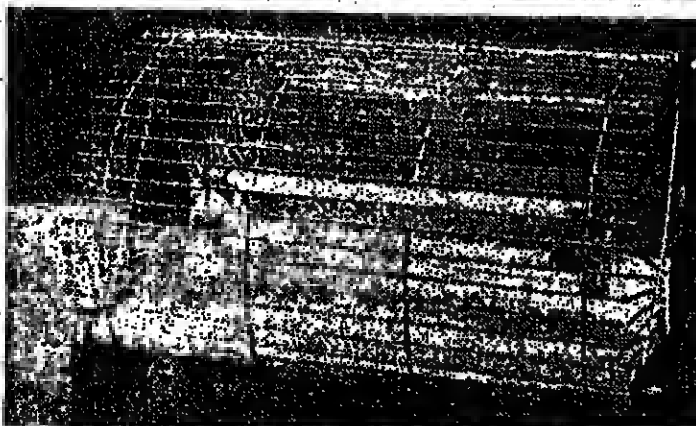
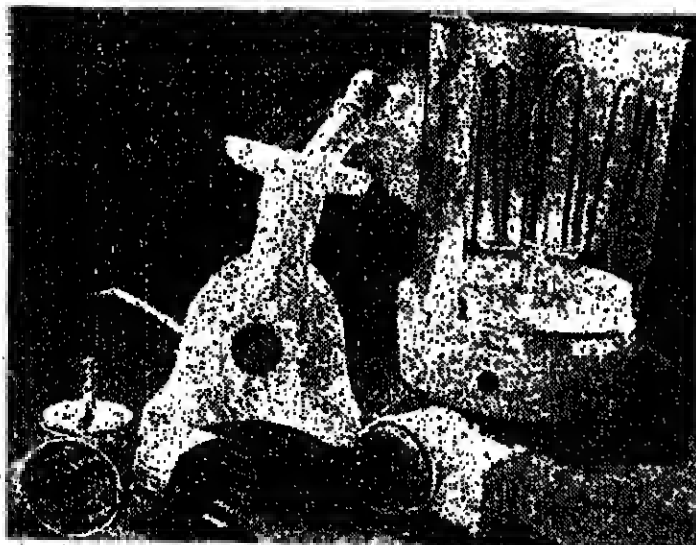


ELEMENTS FOR ELECTRONIC CONSTRUCTION AND ASSEMBLY

- connectors :

- circular, standard and miniature, ROMS, CA, CUA, KAT, KPSE, and PV type
- coaxial, SMC-type
- rectangular, CRD, CRI, RK-type
- insulators
- soft magnetic ferrites
- hard magnetic ferrites
- manganese-zinc cores for deflection coils and output line transformers
- quartz resonators

- modules and blacks of aperotive memories
- support circuits
- shifting registers
- electroluminescent display devices
- LED indicators
- deflection blacks for kinescopes, 110°
- deflection tubes far videa receiving tubes
- terminal line transformers
- pragrammers far TV receivers
- individual and camunity TV aerial amollifiers



HOUSEHOLD APPLIANCES AND ELECTRIC ITEMS FOR SEMIINDUSTRIAL AND INDUSTRIAL USE

- [illegible]

COMPUTER TECHNOLOGY

- Microcomputers, series M-18B, M-118, M-216, CUB for i

- management
- graphic applications
- lab experiments
- text processing
- economic planning
- data collection and transmission

- Minicomputers, series INDEPENDENT - 102F/105 and CORAL-4001/4011/4021/4030

- Medium and medium/high capacity electronic computers, series FELIX C-512/C-1024 and FELIX 8010/8020 for:

- CAD
- industrial process management
- general data processing
- computer distributed networks
- financial-banking management, a.s.o.

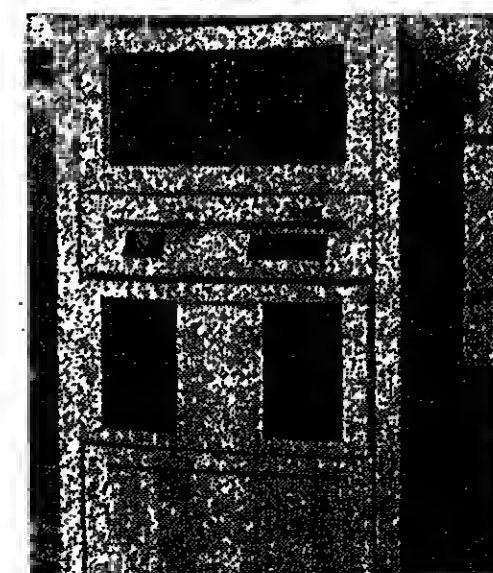
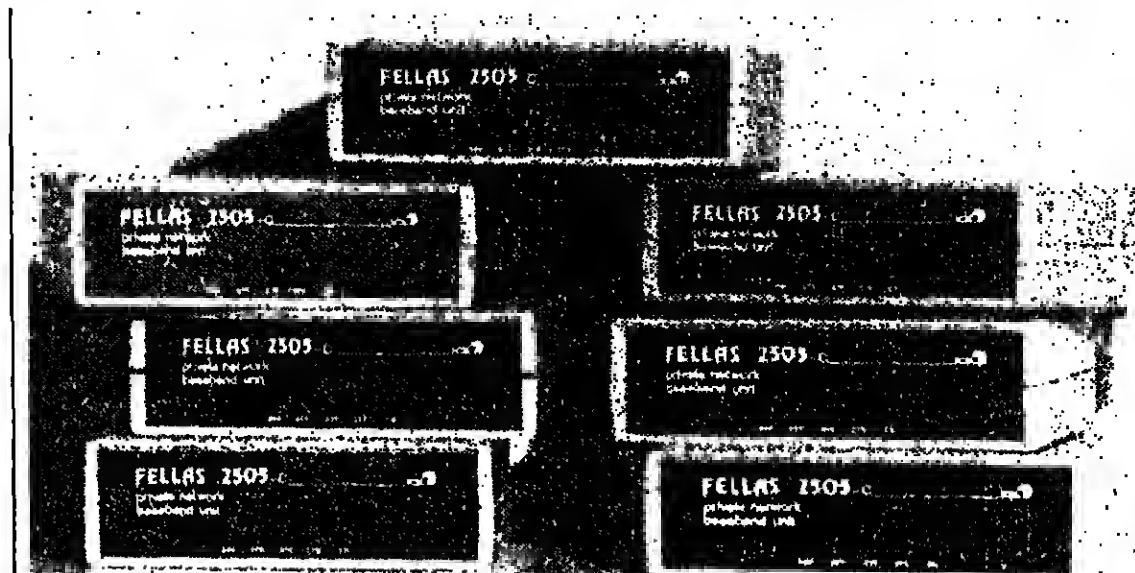
- Micracomputers, series SPOT 83 and SELROM, with autonomous and interconnected operation

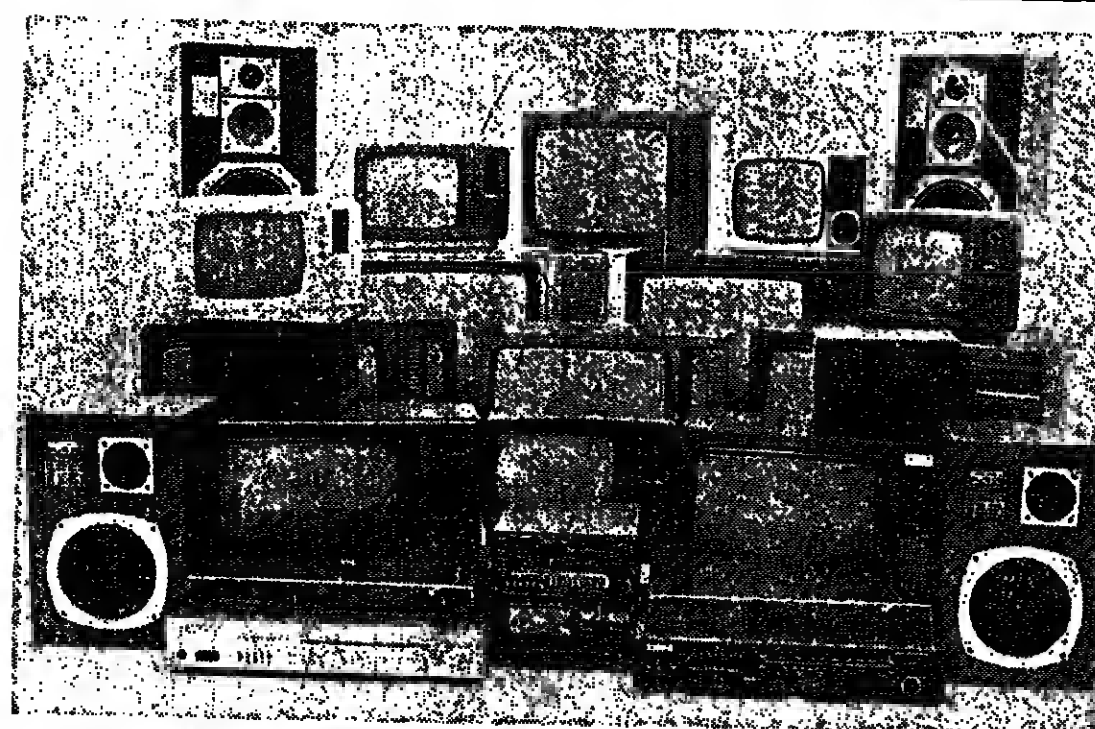
- Data transmission equipment, series FELLAS

- modems 2500/2505
- 8 line-asynchronous multiplexers with mode interfaces
- optomodules
- communication testers
- monitoring and control equipment
- floating paint processors

- ## ● Peripherals

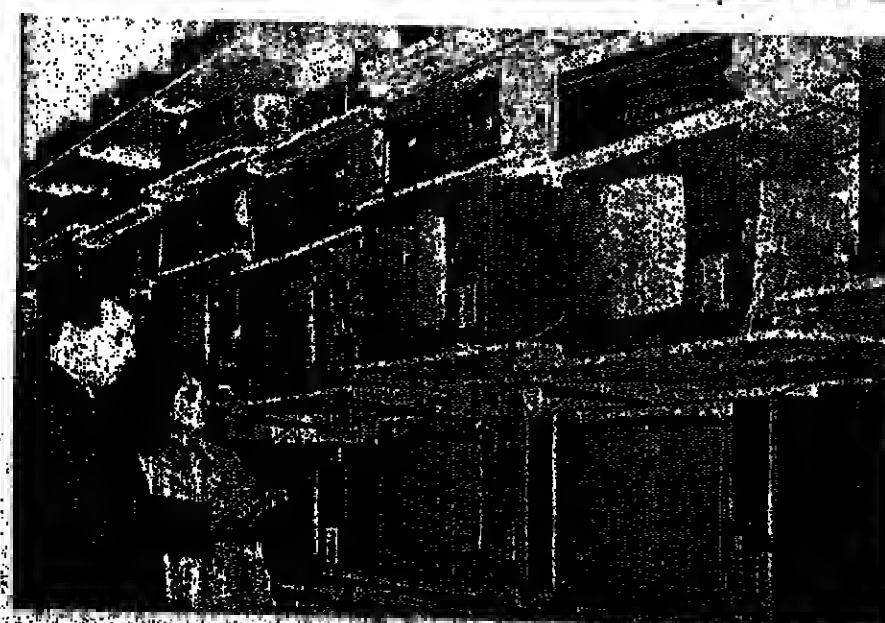
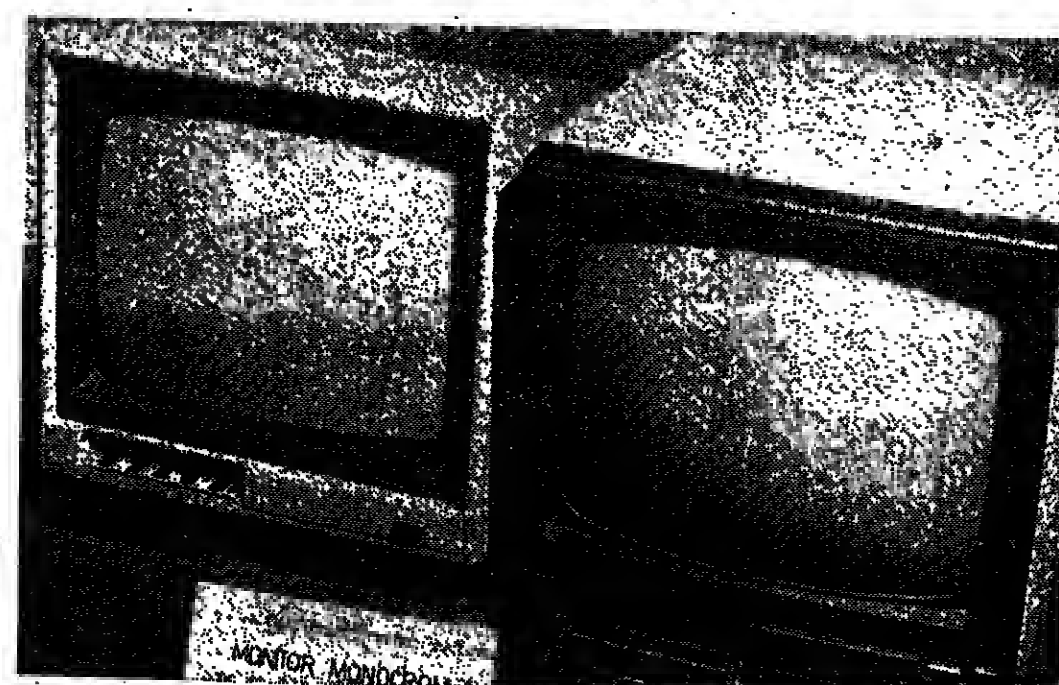
- flexible discs
- magnetic tapes
- magnetic tape printers
- matrix printers
- medium and high capacity discs
- parallel printers/high-speed series
- videoterminals
- alphanumeric displays on black and white colour graphics, series VDT 400, VDT 132, VDT 125
- readers and tape punchers
- card readers, 300-800 CPN (LCR)





AUDIO-VISUAL TECHNOLOGY

- Radio equipment
 - Hi-Fi mono and stereo portable and stationary receivers (AM-FM with four wave-lengths)
 - 2 x 20, 2 x 35, 2 x 50 W audioamplifiers
 - 70 W and 100 W professional monophonic audioamplifiers
 - Amplifiers for land and water transportation means
 - Music centres (AM-FM tuner, amplifier, frequency equalizer)
 - Portable and stationary music centres (RR, RC)
 - Mono and stereo music centres (RR, record player)
 - Mono and stereo cassette recorders
- Stereo decks type EM 2001
- Mono and stereo record players
- Car stereo cassette recorders, series Corina and Stela
- Loudspeakers for general and professional use (20, 35, 40 and 50 VA)
- Small-size and car loudspeakers
- Spheric loudspeakers for homes and cars
- Electrodynamic loudspeakers and megaphones and public address systems
- Outdoor loudspeakers
- Stereo headphones
- Intercoms
- Video equipment
 - Black-and-white TV sets, 31-65 cm diagonal, 900 and/or 1,100 angle of deviation
 - Video monitors for various applications
 - Closed-circuit TV systems

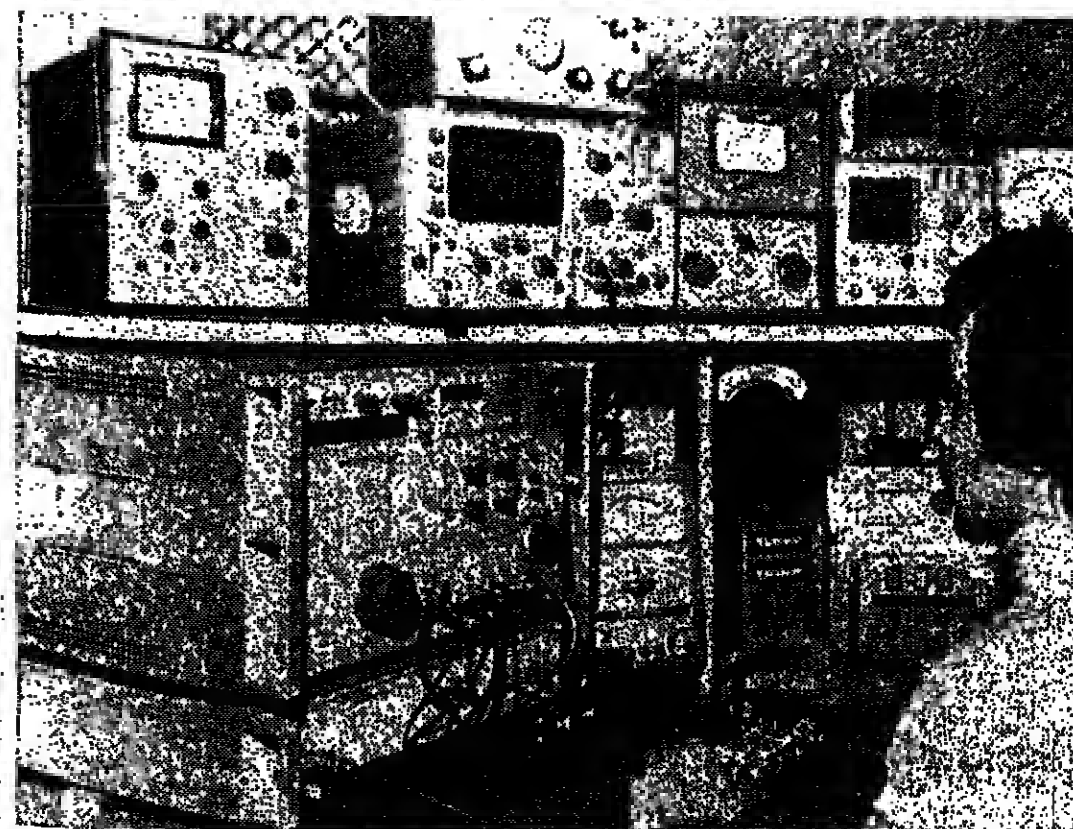
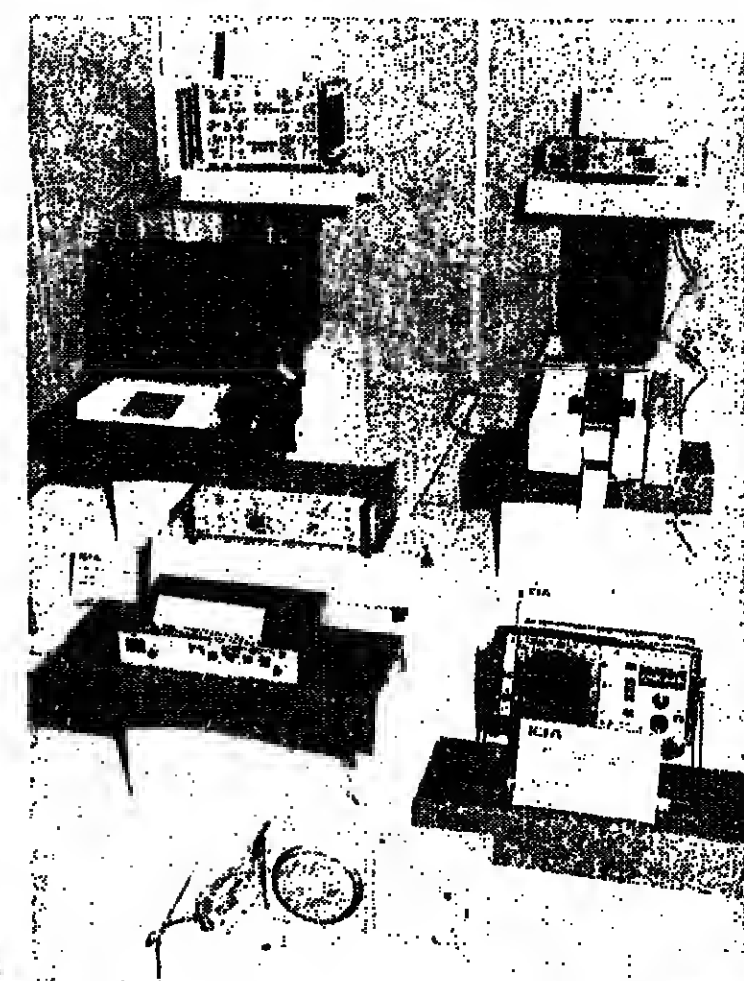


INDUSTRIAL, LABORATORY AND MEDICAL INSTRUMENTS FOR ELECTRIC AND NON-ELECTRIC VARIABLES

- Frequency meters
- Portable numerical multimeters
- Distortion meters
- Wattmeters
- Digital voltmeters
- Measuring bridges
- Functional testers and digital devices for IC identification, type TIC-900 PLUS
- Microprocessor portable

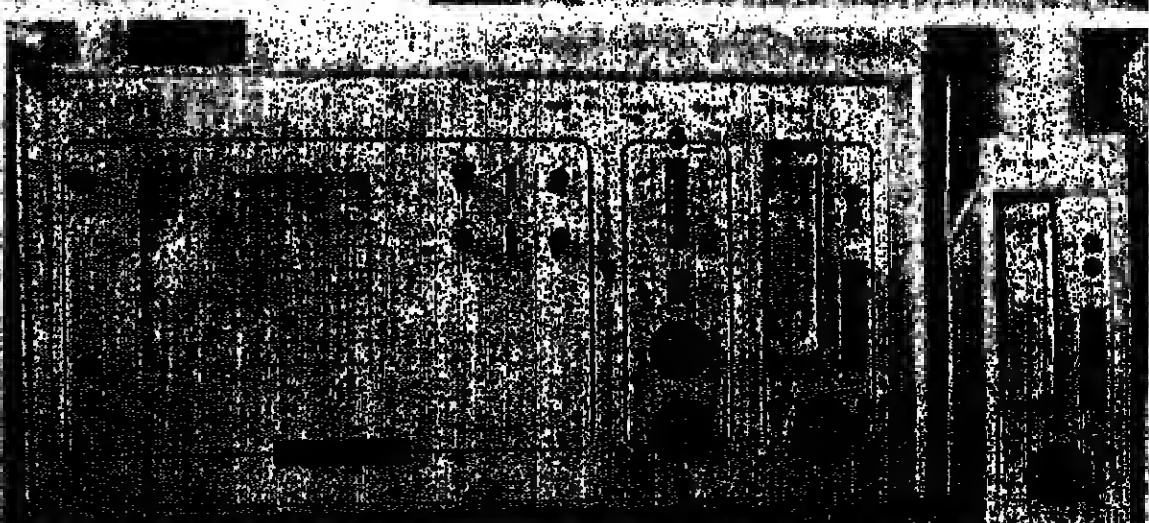
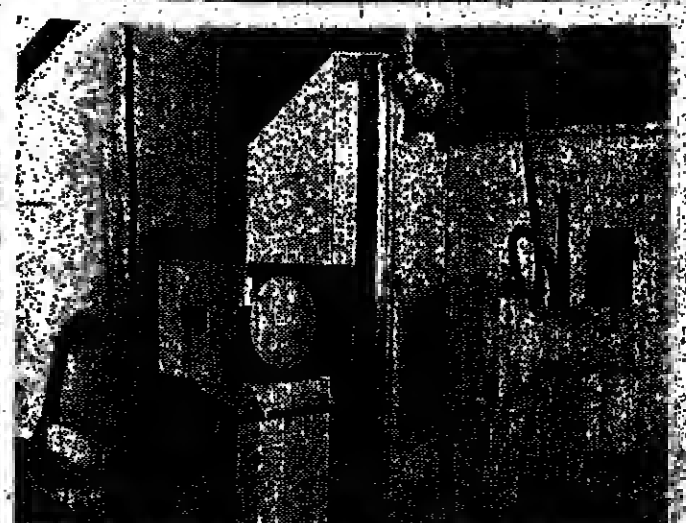


- and dynamic functional testers
- Impulse generators
- Low and high frequency signal generators
- Analog or digital memory oscilloscopes (10-100 MHz)
- Signature analyser multimeters (SAM)
- Strain gauge systems, type TAC (100 joints) and N 2300 with 1 to 6 channels for static and dynamic measurements (forces, torques, pressures, deformations)
- d.c. and a.c. stabilized sources



MEDICAL ELECTRONIC INSTRUMENTS

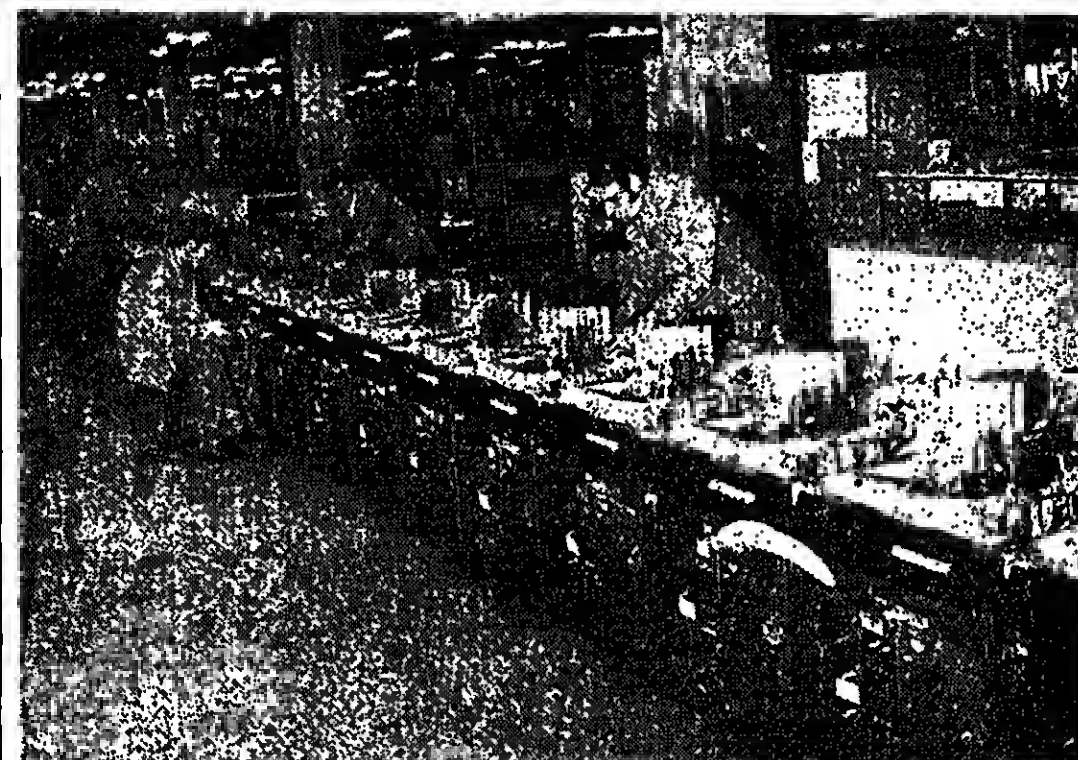
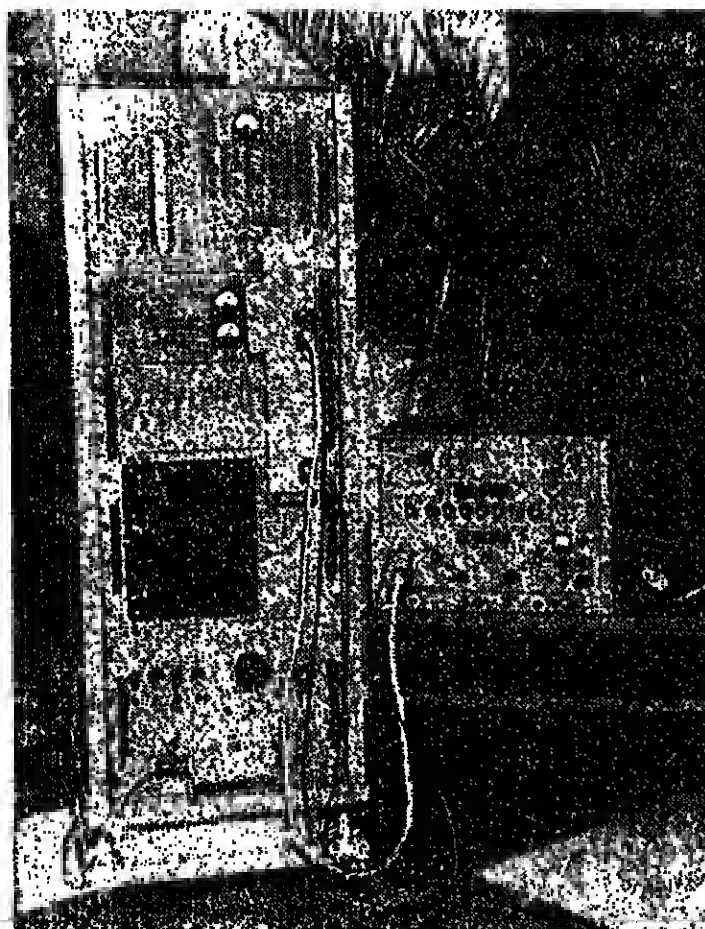
- Medical monitoring and pacemaking units, series MONIPAT and ROMVERTER
- Diadynamic current therapy units DIADIN-2 (neuralgia, inflammatory and post-operative conditions, spondylitis, etc.)
- Medium-frequency Interferential current therapy units, INTERFREM
- Portable neurostimulator
- Magnetotherapy devices
- Protection electric devices for bioregeneration





PROFESSIONAL RADIO EQUIPMENT

- Professional equipment for land, water, air, underground and satellite radio communication (through short, ultrashort and microwaves)
- Radio navigation equipment for airplanes and ships
- Radio relay equipment
- Meteorological radiosondes
- Equipment and devices for electro-acoustic signal amplification
- Radiolocation equipment
- Fixed, mobile and portable radio-telephones



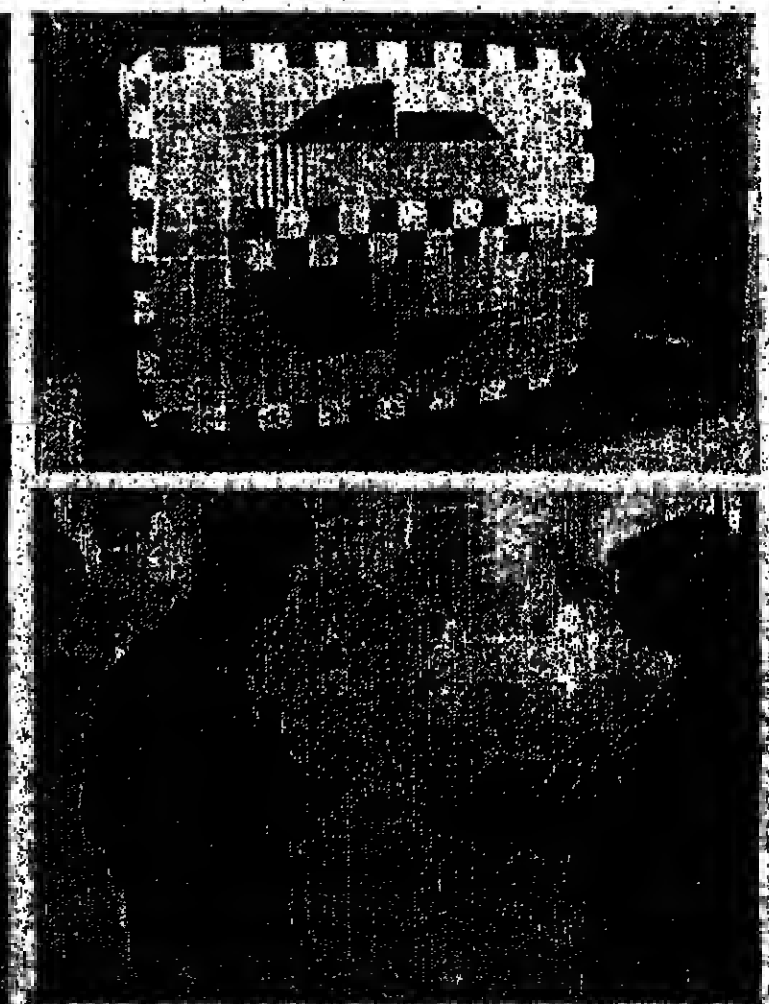
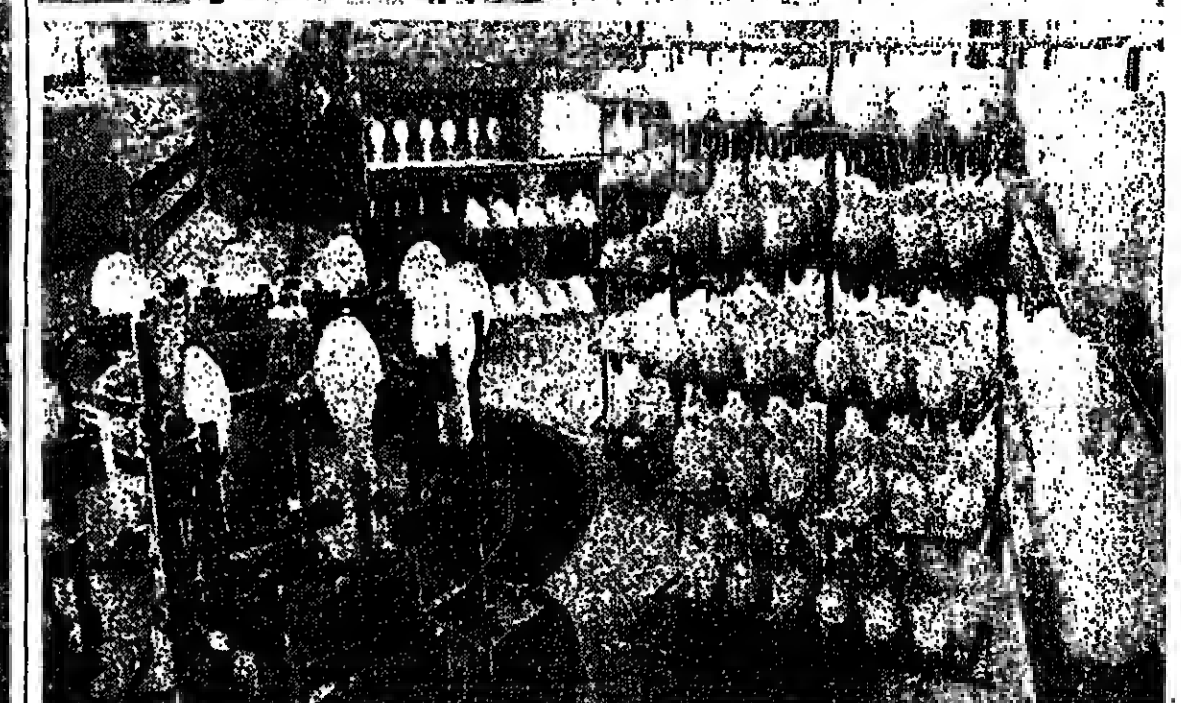
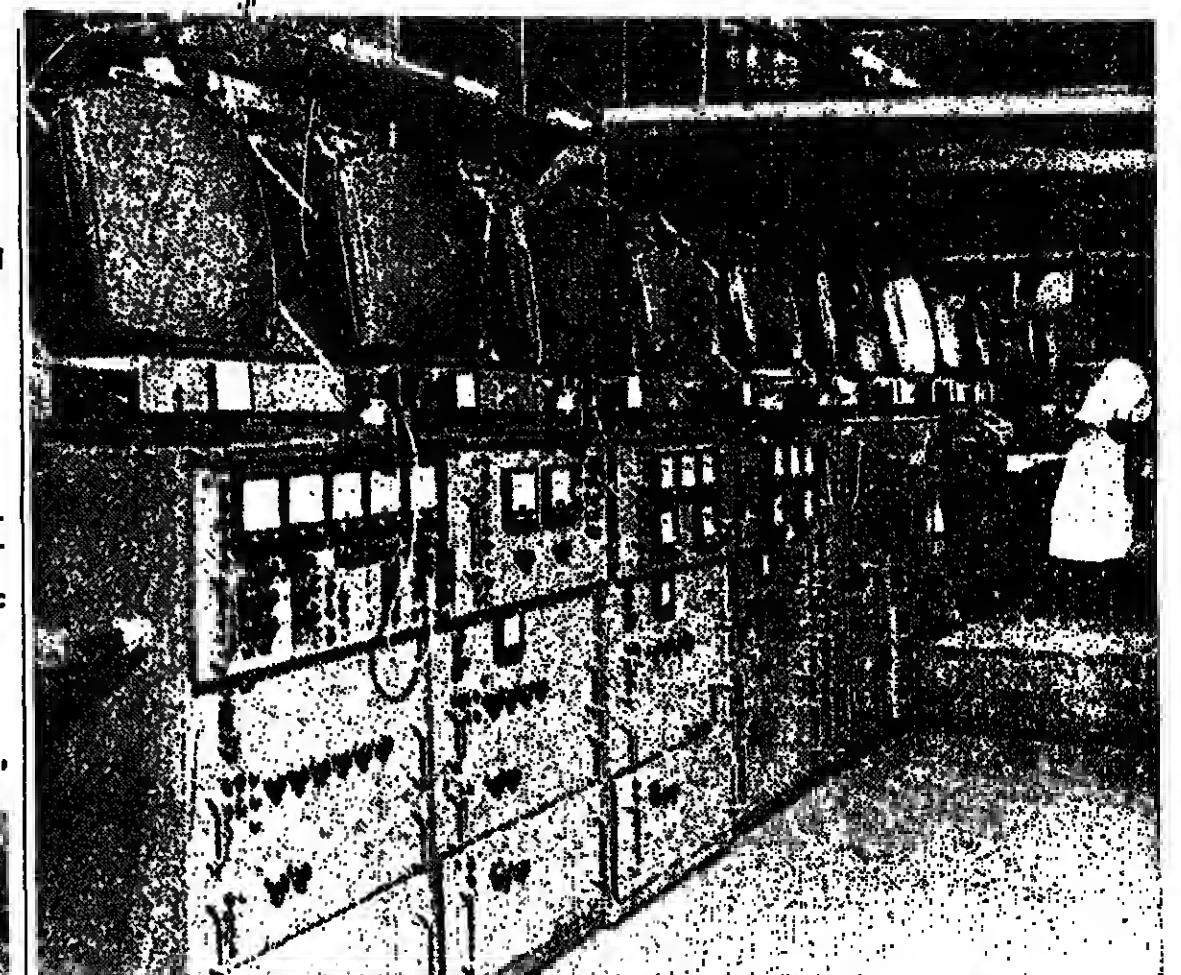
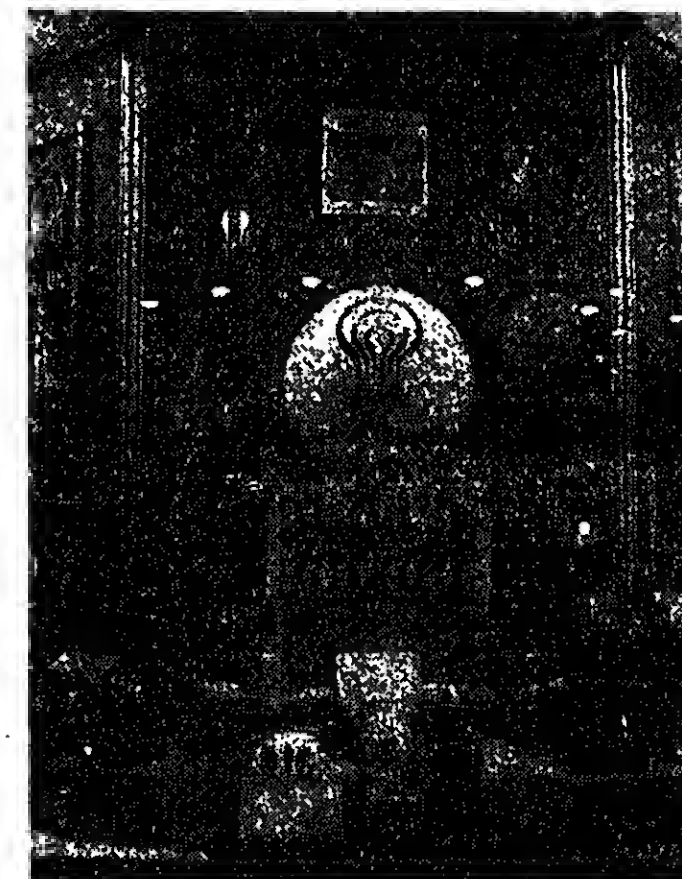
TOOLS, ACCESSORIES AND AUXILIARY EQUIPMENT

- Tools, devices and dies specific to electronic industry
- Technological equipment for electronic industry
- Furnaces for special thermal processes
- Mills for fine grinding
- Spray drying installations
- Die casting machines
- Inductive and capacitive ballasts
- Starters
- Electric devices for circuit voltage measuring
- Ionizing radiation measuring devices (Geiger-Müller detectors)
- Stationary wave tin-plating installations
- Visualization equipment
- Various metal parts
- Assembly elements
- Telephone recesses
- Decreasing number boards
- Electric motors for
 - pick-up plates
 - electric clocks
 - computers
- Selsin 110 v for indicating graduated stop positions with electric locomotives
- vacuum cleaners
- hair dryers
- electric fans
- sewing machines



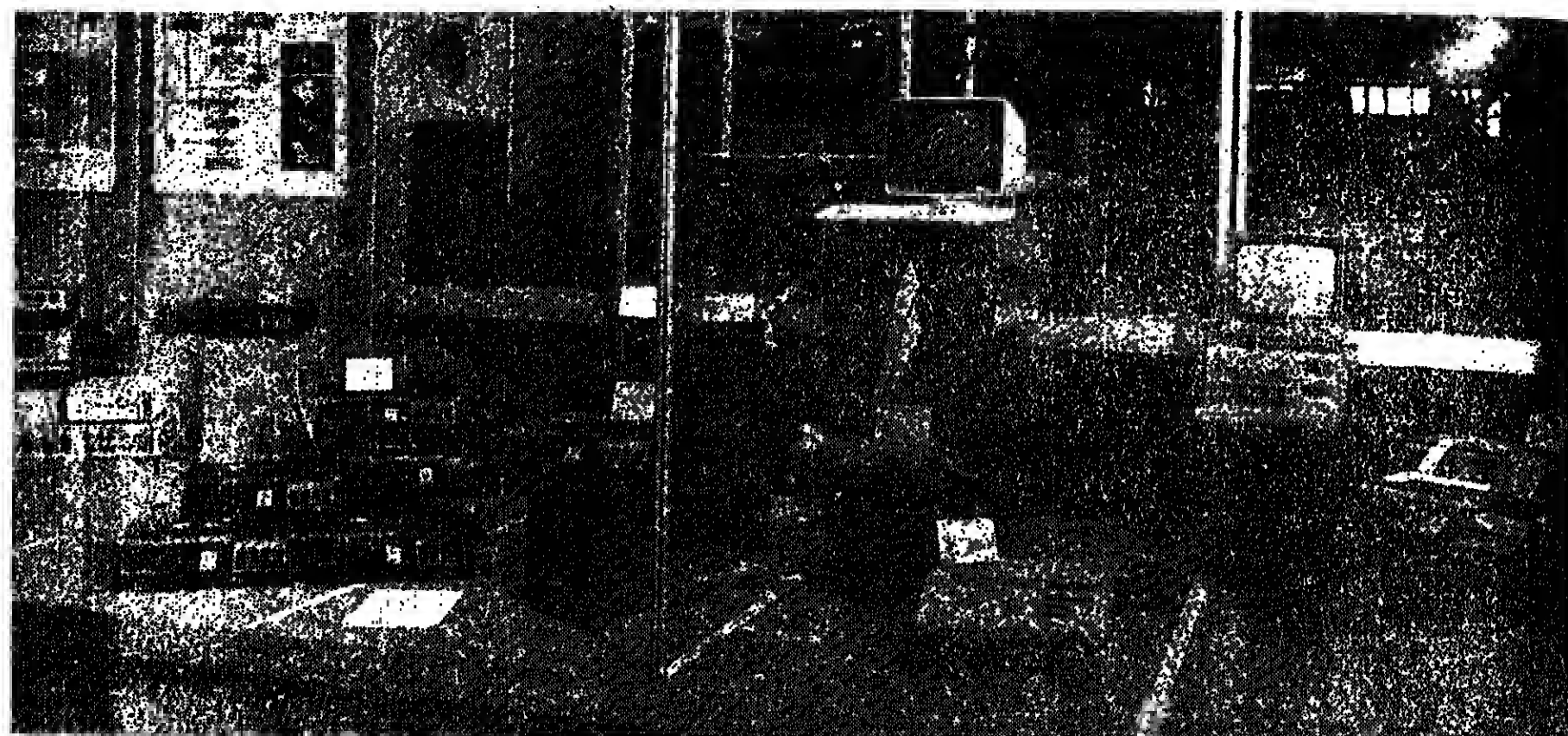
ELECTRIC LAMPS AND PICTURE TUBES

- Incandescent electric lamps for general lighting
- Low-voltage incandescent electric lamps for local lighting
- Electric lamps for ships and explosive environments
- Electric lamps, type T 3
- Reinforced electric lamps, REZISTA
- Low pressure mercury vapour lamps (LFA)
- High pressure mercury vapour lamps (LVF, LVV)
- Fluorescent electric lamps for general use
- Electric lamps for lanterns, scales, telephones, vacuum soffit lamps, gas lamps, miniature and sub-miniature instrument panel lamps
- Monophase and biphas stop and brake car electric lamps
- Electric trafficator
- Lamps for locomotives, ships and aircraft
- Projection lamps
- Black-and-white picture tubes, with diagonals of 31, 44, 47, 51, 59, 61 and 65 cm.



هكذا من الأصيل

THREE OUTSTANDING NAMES AT CIETC



ITCI - INSTITUTE FOR SCIENTIFIC RESEARCH AND TECHNOLOGICAL ENGINEERING IN COMPUTER TECHNOLOGY AND INFORMATION THEORY

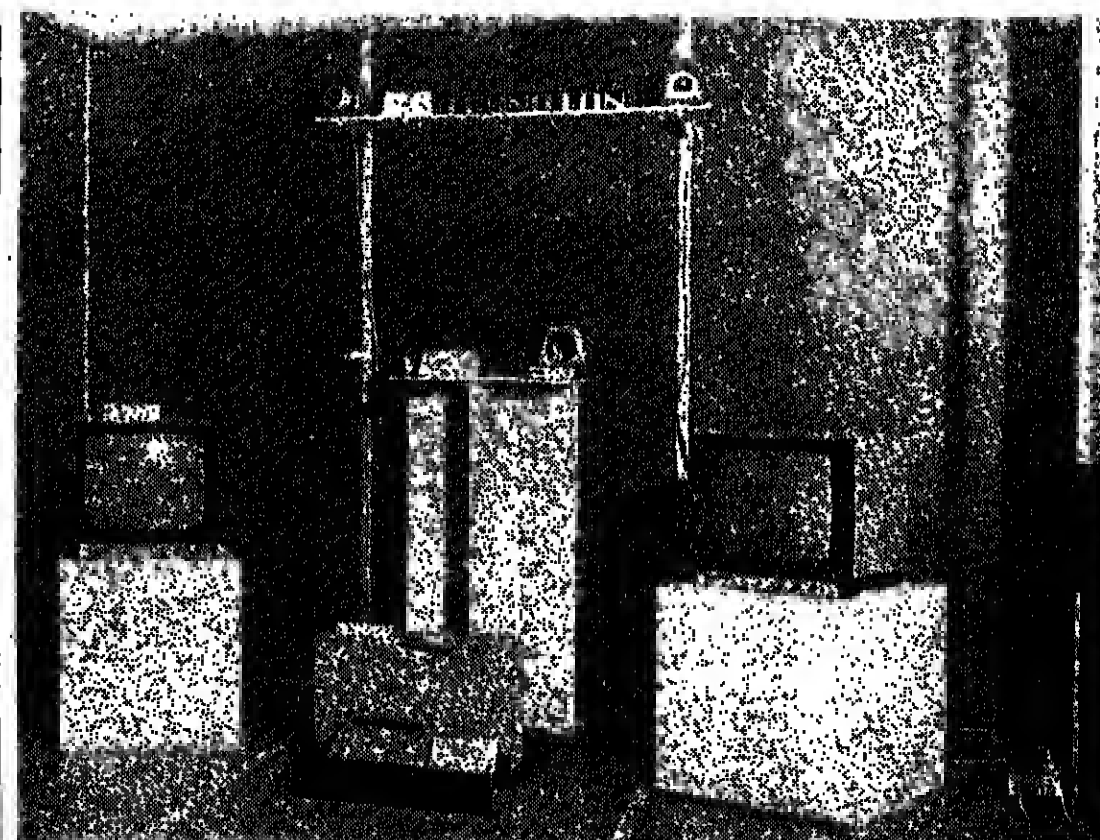
BUCHAREST • ROMANIA • 167 FLOREASCA ROAD •
POB 72312 • SECTOR 2 • TELEPHONE 33 32 34 •
TELEX 11846 INTER



- Turnkey mini and microcomputer operational systems
- Software for CAD, data banks and teleprocessing
- Training and technical assistance
- Servicing and auxiliary services

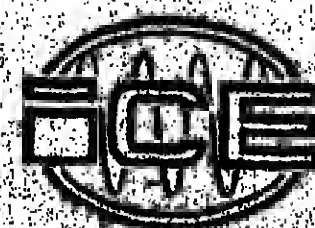
OFFERS:

- Research, testing prototypes and series in the field of hardware and software
- Consulting on questions of bilateral interest and for third markets



ICE - INSTITUTE FOR SCIENTIFIC RESEARCH AND TECHNOLOGICAL ENGINEERING IN ELECTRONICS

BUCHAREST • ROMANIA • 169 FLOREASCA ROAD •
POB 73321 • SECTOR 2 • TELEPHONE 33 12 35 •
TELEX 11907714 ICERO



- Electronic medical and control instruments (NCU)
- Professional radio communication equipment
- Electronic instruments for medicine and biological research
- Servicing

OFFERS:

- Research, testing prototypes and series in the field of hardware and software
- Consulting on questions of bilateral interest and for third markets



IRUC - MAINTENANCE AND SERVICE ENTERPRISE FOR COMPUTING AND PROFESSIONAL ELECTRONIC EQUIPMENT

BUCHAREST • ROMANIA • 6 DIMITRIE POMPEI BLVD •
POB 72326 • SECTOR 2 • TELEPHONE 82 20 70 •
TELEX 11716 IRUC R

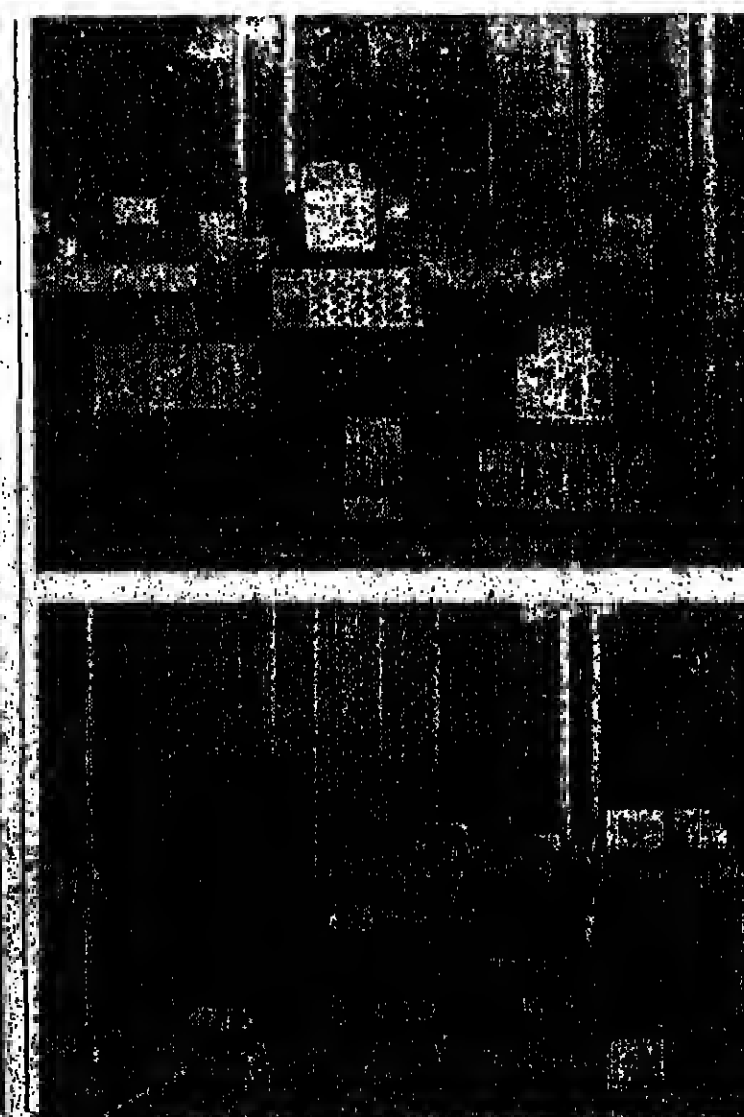
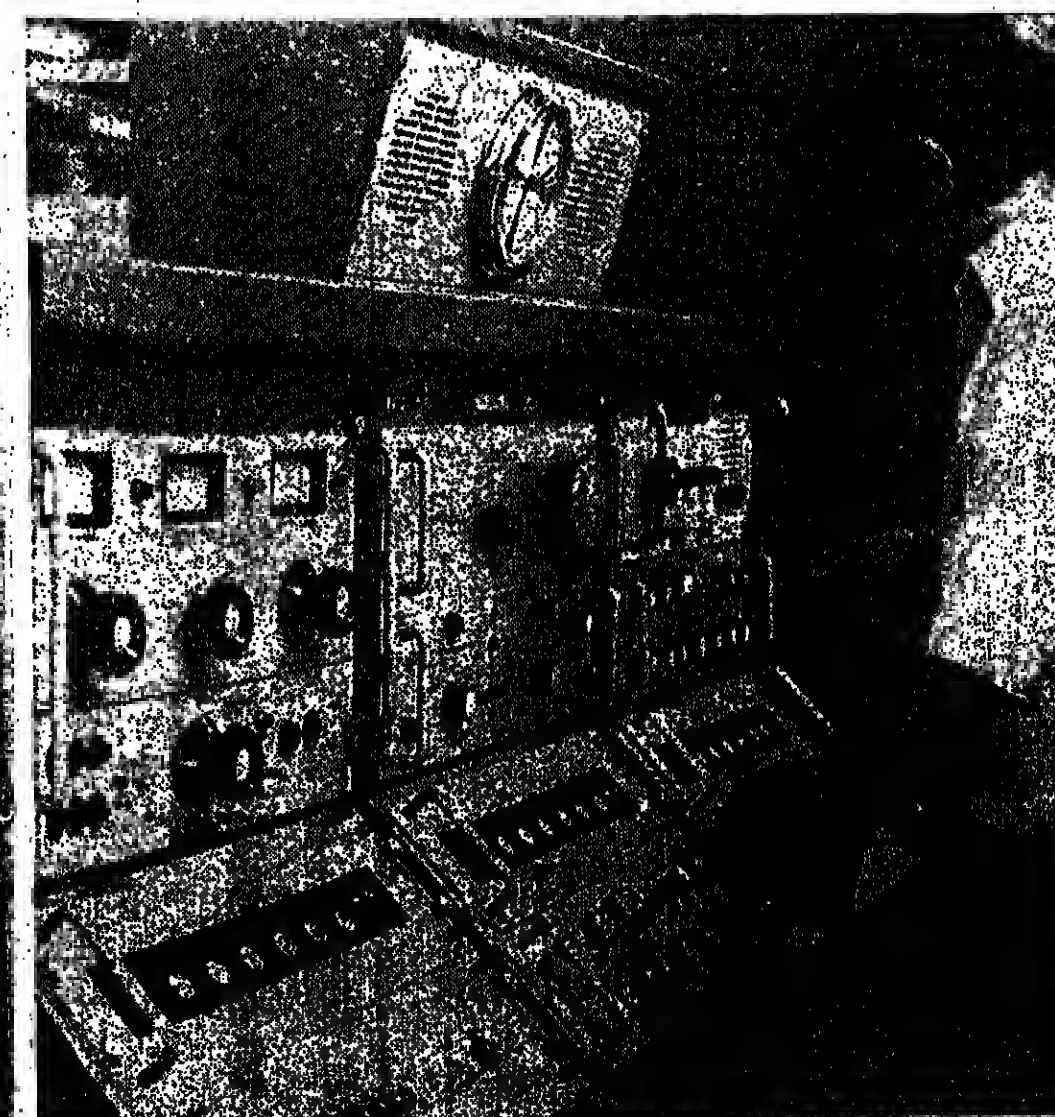
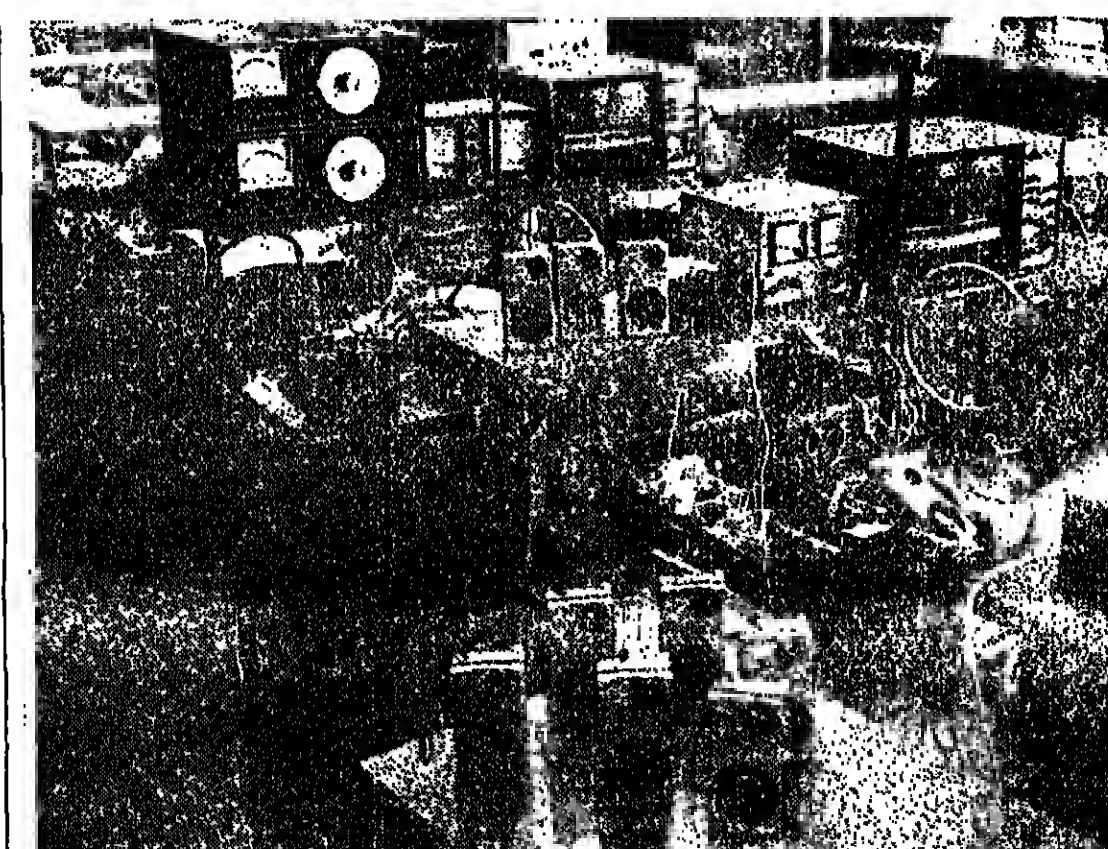


- and for similar imported foreign equipment
- Studies and specific designs
- Product quality control
- Storage and transit
- Setting up and putting into operation
- Periodical servicing and overhauls
- Product assembly for delivery to third markets
- Trained personnel for demonstrations and stand technical assistance at international exhibitions

OFFERS:

- Maintenance and service for mechanic, electric and electronic computer technology, for Romanian professional and medical electronic equipment at home and that exported abroad.

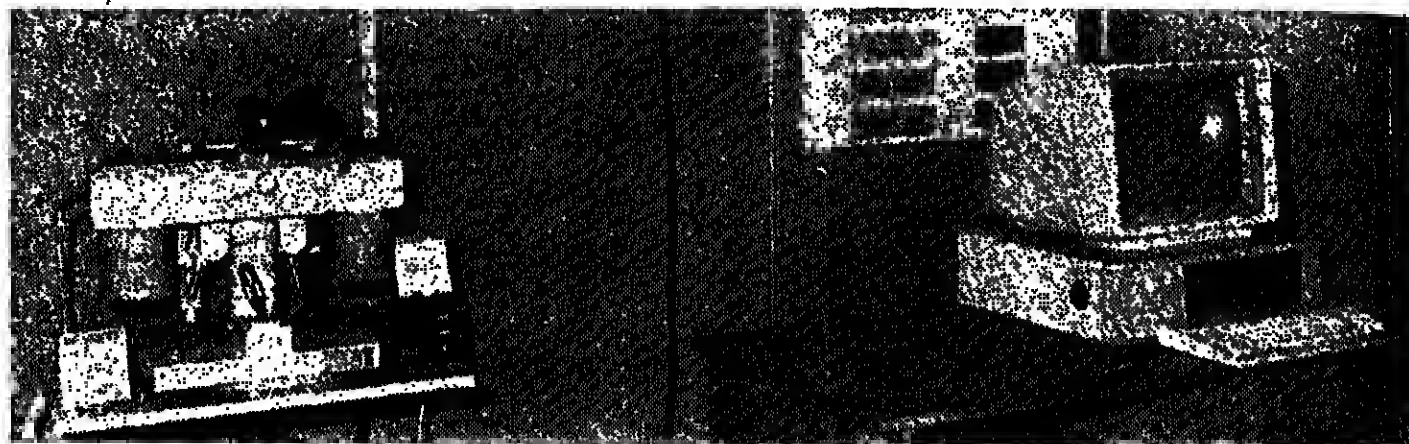
Outline by
eng. Octavia TARAZA,
CIETC Commercial
Director



ELECTRONICS—THE MOST EFFICIENT TRADE LANGUAGE

In the last few years, the total turnover of the Ministry of Electrical Engineering (MIE) has dynamically, constantly and substantially grown thanks to the contribution of the Industrial Control for Electronics and Computer Technology (CIETC), a fact that clearly shows the general orientation of the world technical community, its definite entry in an age of essential changes in which electronics and particularly microelectronics play the main part.

Actively participating in this large-scale process, MIEI exports to nearly 60 developing



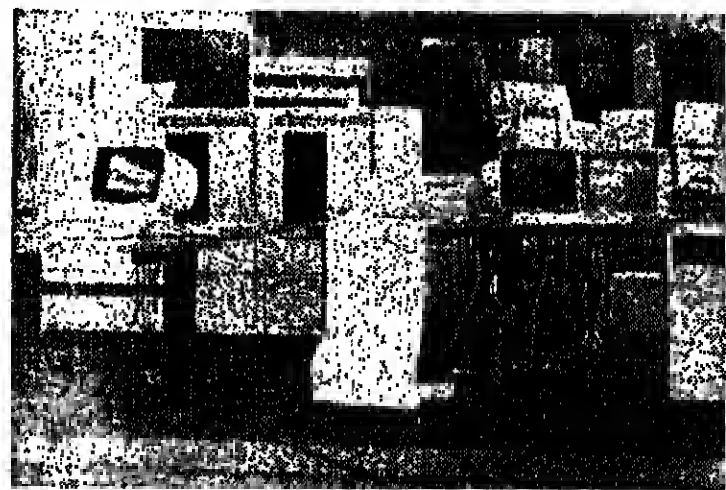
Certainly, the yearly growth of our business in the area of electronics reflects our receptivity to all cooperation proposals from specialized industries in the world, all the more so as we have highly valuable resources.

It is true that we have very modern human and material capacities; new factories built according to the latest requirements, competitive equipment, as well as a system of promoting the new at a fast pace; but, even more important is the volume of technical intelligence accumulated in our research and production units in such a short time.

We are mentioning this, even though the beginning in a couple of fields was based on licenses (Amphenol, ITT-Cannan, Plessey, Alfa, Corning Glass, Siemens etc.) the contributian

of the Romanian specialists to promoting specific technologies is outstanding. In less than a decade, three or even four tech-

innovallens (over 500 patents at home and abroad) which has determined the broader inclusion of the Romanian oil in



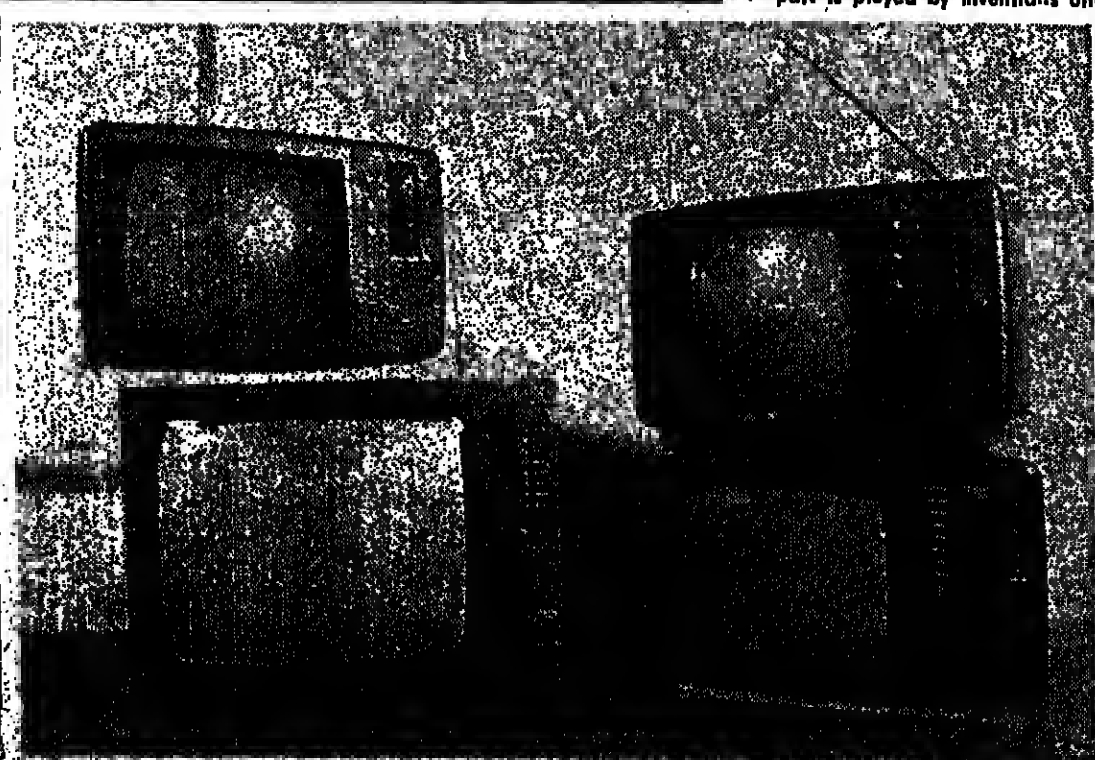
end developed countries, the USSR and the USA included, electronic items and computer technology, of which the follow-

- professional radio and radiotelephone equipment for normal conditions or improved.



ing products are in greatest demand:

- radio parts and semiconductors
- computers, micro and minicomputers
- various peripherals
- electronic memories and components for computing equipment
- programs and program packages for computer-aided applications in electrical engineering and related fields
- microelectronics
- connection elements
- ferrites
- electric lamps for general and special use
- audio-visual consumer goods
- industrial electronic measuring devices



nalogical stages have been covered so that the products of 1980 are now considered outdated.

In this process, an important part is played by inventians and

trasciens in the field, al
as the co-oping of CIETC
cialists to setting up, in
and technical assistance
ties, work on international
dustrial projects, end to in
land world training, men
and management bodies.

Being a branch of the industry which meets performance quality standards accepted in most industrial countries, more than 90 per cent of our products are certified by international standardizing bodies, especially with its spearheads in laser technology and electronics today an ever more important sphere of trade relations with many countries.

Eng. Nicolae PAPAGH
Director of the Foreign
and International Economic
Cooperation Department
MIA

Supplement brought
under the supervision
Technique-Scientific
ganda Department

Principal coordinator:
Gheorghe SAVA

Collaborators: V. and
FISCU, V. and
Vail, TRONARU, J. and
HELEAN, J. and
Gabriela, KATU, J. and
GHEORGHIU, J. and
SOIMU

English, vol. 1, 1902
NILEHITA, 2, 1902
NILEHITA, 2, 1902

APPLY TO CIETC AND ITS ENTERPRISES THROUGH:
ELECTRONUM • ICE TERRA • ELECTROEXPORTIMPORT • ROMCONSULT
• ICE DUNAREA • ILEXIM • UZINEXPORTIMPORT • TECHNOEXPORTIMPORT
• GEOMIN • ARCOM

ROMANIAN NEWS

FLOWERS AT THE POLE OF COLD

Marghita county is also famous due to the Josani commune, known in Romania as the "cold pole". When I reached it, at 6.30 p.m., there were 8°C. The meteorologist on duty was Liano Bolog.

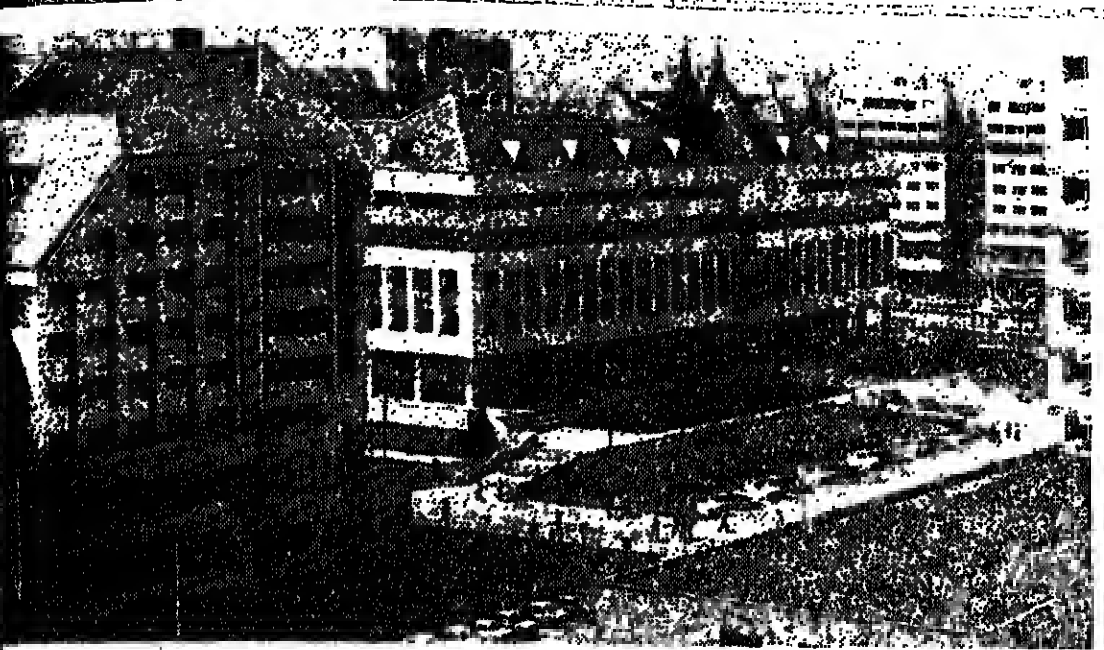
The meteorological station, an imposing one-story building, lies on the outskirts of the community. A "diary" of local history reads that "the station was furnished anew while the meteorological office was moved to a new building today Decem-

You can resist in such a station only if you really like the job. That is why all meteorologists look alike, making up a family tied by visible and invisible threads. At Joscot the air temperature is measured every hour, pressure every three hours, and the soil temperature

every six hours. Dals are communicated to the "collecting" station on Buell and then written down in a register filled with lists of numbers and weather signs. There is so much rigour and accuracy in writing down these lists that you wonder how come the weather forecasts are never fully correct! Because the small paradox of meteorology seems to lie in drawing conclusions from the weather reports starting from extremely inaccurate data.

One station register also read that the maximum of the unrecorded temperatures exceeding 32° in the last one month was 42° in the middle of the month of June the 15th, a date chosen at random. However, four years ago in winter the temperatures dropped below zero!

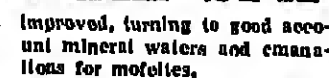
I left Liann Bolog for her notes, yet not before asking her to name her colleagues: "Tanko" (Tanner), "Liam" (Liam), "Christie Seltmer, Defta Vasilie,



A GARDEN-LIKE SPA

Whatever you may write about Băile Tuşnad, it would invariably sound as an advertisement. Breda Lovaci, chief accountant of the spa, is a living encyclopaedia stuffed with all kinds of data concerning this spa inhabited by 2,950 people. Though the smallest town in Romania, Tuşnad features among the few garden-like spas: no source of pollution, clean air ("resin aerosols with negative ions"), quiet ("only trams make noise", etc).

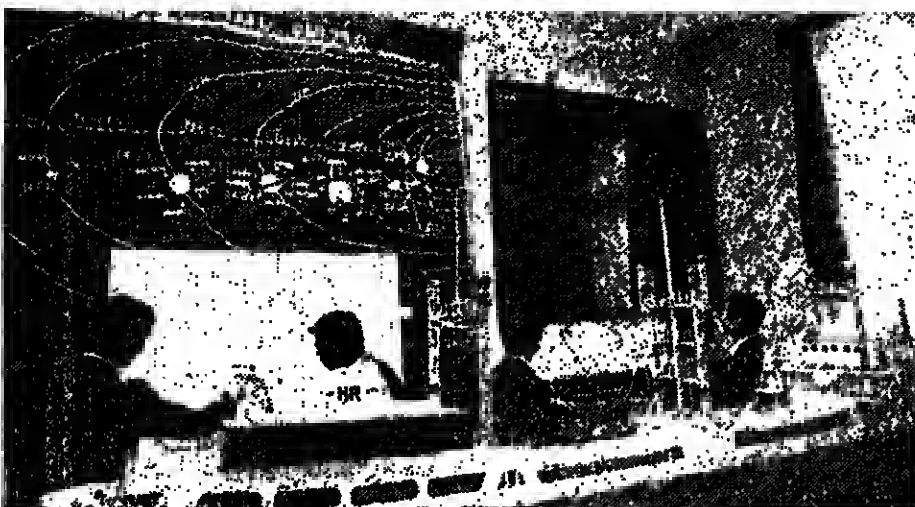
Tsgnald is a place where 23 afflictions (cardiovascular and of the central nervous system) can be healed thanks to the special climatic conditions existing here. More important than this natural reality is the people's concern with "treating" this naturally occurring disease, with curing conditions in which each of the nearly 70,000 guests of Tsgnald may have reason to come back. The Tsgnald cure is not a miracle is quite invariable: "Tsgnald has 632 accommodations in three hotels, 1,801 in rest houses, 1,200 in motels, 1,000 in camps as well as 2,500 places in restaurants. The accommodation capacity has doubled since 1983, while the bathing capacity has tripled. We have heard substantially



The caterpillar tractors made in Mikroreus Cito are the fruit of the technical intelligence and competence of the engineers, technicians, and workers of an enterprise which, particularly in just the year of its anniversary, has distinguished itself by its prestige. The International Trade Fair in Leipzig, the Garmbata tractor won the gold medal in 1982. There were other recognitions, the latest one — another gold medal in Plavdiv in 1987 as far, over 30,000 tractors have left the enterprise, of which more than half have been exported to over 30 countries all over the world, some of these countries boasting an old tradition in the field. In a very short time, the tractor enterprise in Mikroreus Cito will develop its capacity to such an extent as to produce 10,000 tractors yearly. The unit has assimilated 20 new types of tractors so far.

Szecs Tulfann, Georgely Callia.
If you happen to hear on the radio the temperature of Joseny, you will know that it is the result of roegeroches made by these people; and in case the forecast proves inaccurate it will surely be not their fault. Because still the meteorologists are. Highly educated people, rarely allowing themselves a "scintillato!" outburst in their diary, as it happened when someone wrote "today, the 13th of February, 1971, I found an edwelswe near the meteorological station".

OCTAVIAN STREANU ■



SKI LIFTS AND SKI TOWS

The modernization of the ski lift on the Cioclovani ski resort (Pecica) has meant the doubling of the transport capacity (1,300 skiers per hour). The ski lifts are now more comfortable and covered with a tarpaulin. At the same time, the ski tow on the Cioclovani ski slopes has doubled its transport capacity.



ROMANIAN ECOLOGICAL RESEARCH

Romanian scientists, members of the Romanian Academy, and experts of specialized institutes have been working on ecological studies in the Danube Delta. Delimited thus were several natural reserves, scientific reserves and natural monuments, as well as reserves, nesting places and ornithological slopes for birds in transit. The overall area placed under law protection amounts to 41,500 ha. The Danube-Delta reserve in the Danube Delta has been delimited in the 177 ecosystems internationally considered as representative of all continents. This decision was taken as part of the "Man and the Biosphere" international study programme coordinated by UNESCO. Also delimited in the Danube Delta were the reserves Bogza-Bihorova-Irresolva lying in the river delta, Pestir-Zidostea, in the estuarine delta, and Petricosa-Leobova-Portile de la Rosetii-Since lacuna complex. Delimited and placed under protection were also the scientific reserves Leca, Carsoian and Frandea. Within the reserves, buffer zones have been provided for numerous natural monuments. Measures have been taken for expanding the afforested areas by some 8,000 ha. At the same time, protection curations made up of fruit-bearing trees and shrubs are to be extended. Actions have been taken for controlling

Capitalizing the therapeutic and economic virtues of geothermal waters (of producing electric energy or ensuring heating or hot water) has already become a practice in several country areas with such resources. To these capitalization possibilities was added a new one: degassing geothermal waters with a view to using gas for various consumers. The recently homologated installation ensures a normal degassing of 108 cu.m. water per hour, respectively the usual flow of geothermal water drilling. The gas flow is 250 cu.m. per hour, and it has the pressure and humidity needed by various consumers.

The electron equipment controlling seed distribution in the soil, made by "Ceahlaui" Mechanical Enterprise in Pitesti. The device is practically an auto seed control ensuring with maximum precision their rhythmic passage through a narrow space in order to be planted. The distance can be established according to the culture category. The power supply is effected by a 12 v. battery.

SPRING WHEAT

The specialists at the Farming Research Station in Turda, Cluj county (the collective of the spring wheat harvesting laboratory), have created a new wheat strain, which has recently been homologated. It is called Speranta, a spring wheat, meant for the cooler areas in Transylvania. At the testing centres in such mountainous and pre-mountainous areas, the Speranta strain has yielded prodigious results: 30 per cent higher than the Ruluia breed spread at far on the respective plots. The Speranta strain has a productive potential of over 7,200 kg per ha.



HUMAN SOLIDARITY

The crew of the Romanian ship Dragana, which was sailing 1,000 miles off the Gulf of Bengal, en route from Singapore to Constanta, visually received the signals of distress sent by the people aboard a drifting fishing craft. After difficult manoeuvres in the storm, seven fishermen in an advanced state of exhaustion were taken on board the Romanian ship where they were given the emergency care they needed. The ship's crew were surprised to find that the fishermen had left the port of Hanoi, Vietnam on December 4, 1987 (as the boat's papers show) and, being caught in a storm with the engine broken down, had drifted until the month of February with no hope of being rescued, according to a bulletin in the middle of the ocean.

HIGHLY EFFICIENT TECHNOLOGIES

The specialists of the Institute of Scientific Research, Technological Engineering and Design for hot rollers have developed a technology remodelling alloyed steels in long rolls, which are used for the manufacture of rolls for cold rolling and forging dies. The application of this invention allows the integral reuse of rolls of worn-out dies and other parts made of alloyed steels.

LEAD ALLOYED WITH STEEL?

While testing technologies interalloying cheap elements (like aluminium or lead) with steel, metallurgists and engineers from the Special Steel Works in Tirgoviste managed to produce an efficient method alloying steel and lead. The fact is quite extraordinary if we think that so far lead and steel could not be combined within the same oven due to their different melting temperatures and to the lead's vapour which posed a real threat to steel baths, performing even the special "protection" measures. Still, engineer Gheorghe Dileanu and his team succeeded in "interalloying" steel and lead, and they now succeeded in manufacturing through technological tests made at the Precision Mechanics Enterprise of Sibiu.

NEW HOUSING UNITS

Bucina. In the last decades having approved since the country's administrative territorial reorganization, over 72,000 apartments have been built and commissioned in the urban and rural centres of the country. 1,000 of which are meant for agriculture in villages.

Mingalia. Constructed and designed for bordering a new boulevard, Mingalia and known by the town's inhabitants as the "sun's thoroughfare", a modern and magnificent architectural complex which is to include, in its ground floor, shops and public facilities is currently under construction.

Radauti. Capital shop in the centre of Radauti, a new housing complex called Republica, on the ground floor, there are shops selling farm implements, household and auxiliary appliances, a restaurant, a park and a local shop.

Nagerei. On a modern, elegant, and highly equipped, the 1,000 apartments, the 120 houses, the 100 shops, the 100 restaurants, the 100 bars, the 100 clubs, the 100 cinemas, the 100 schools, the 100 kindergartens, the 100 hospitals, the 100 police stations, the 100 fire stations, the 100 post offices, the 100 banks, the 100 libraries, the 100 museums, the 100 parks, the 100 squares, the 100 boulevards, the 100 streets, the 100 lanes, the 100 alleys, the 100 paths, the 100 bridges, the 100 tunnels, the 100 viaducts, the 100 overpasses, the 100 underpasses, the 100 roundabouts, the 100 T-junctions, the 100 Y-junctions, the 100 X-junctions, the 100 Z-junctions, the 100 A-junctions, the 100 B-junctions, the 100 C-junctions, the 100 D-junctions, the 100 E-junctions, the 100 F-junctions, the 100 G-junctions, the 100 H-junctions, the 100 I-junctions, the 100 J-junctions, the 100 K-junctions, the 100 L-junctions, the 100 M-junctions, the 100 N-junctions, the 100 O-junctions, the 100 P-junctions, the 100 Q-junctions, the 100 R-junctions, the 100 S-junctions, the 100 T-junctions, the 100 U-junctions, the 100 V-junctions, the 100 W-junctions, the 100 X-junctions, the 100 Y-junctions, the 100 Z-junctions, the 100 A-junctions, the 100 B-junctions, the 100 C-junctions, the 100 D-junctions, the 100 E-junctions, the 100 F-junctions, the 100 G-junctions, the 100 H-junctions, the 100 I-junctions, the 100 J-junctions, the 100 K-junctions, the 100 L-junctions, the 100 M-junctions, the 100 N-junctions, the 100 O-junctions, the 100 P-junctions, the 100 Q-junctions, the 100 R-junctions, the 100 S-junctions, the 100 T-junctions, the 100 U-junctions, the 100 V-junctions, the 100 W-junctions, the 100 X-junctions, the 100 Y-junctions, the 100 Z-junctions, the 100 A-junctions, the 100 B-junctions, the 100 C-junctions, the 100 D-junctions, the 100 E-junctions, the 100 F-junctions, the 100 G-junctions, the 100 H-junctions, the 100 I-junctions, the 100 J-junctions, the 100 K-junctions, the 100 L-junctions, the 100 M-junctions, the 100 N-junctions, the 100 O-junctions, the 100 P-junctions, the 100 Q-junctions, the 100 R-junctions, the 100 S-junctions, the 100 T-junctions, the 100 U-junctions, the 100 V-junctions, the 100 W-junctions, the 100 X-junctions, the 100 Y-junctions, the 100 Z-junctions, the 100 A-junctions, the 100 B-junctions, the 100 C-junctions, the 100 D-junctions, the 100 E-junctions, the 100 F-junctions, the 100 G-junctions, the 100 H-junctions, the 100 I-junctions, the 100 J-junctions, the 100 K-junctions, the 100 L-junctions, the 100 M-junctions, the 100 N-junctions, the 100 O-junctions, the 100 P-junctions, the 100 Q-junctions, the 100 R-junctions, the 100 S-junctions, the 100 T-junctions, the 100 U-junctions, the 100 V-junctions, the 100 W-junctions, the 100 X-junctions, the 100 Y-junctions, the 100 Z-junctions, the 100 A-junctions, the 100 B-junctions, the 100 C-junctions, the 100 D-junctions, the 100 E-junctions, the 100 F-junctions, the 100 G-junctions, the 100 H-junctions, the 100 I-junctions, the 100 J-junctions, the 100 K-junctions, the 100 L-junctions, the 100 M-junctions, the 100 N-junctions, the 100 O-junctions, the 100 P-junctions, the 100 Q-junctions, the 100 R-junctions, the 100 S-junctions, the 100 T-junctions, the 100 U-junctions, the 100 V-junctions, the 100 W-junctions, the 100 X-junctions, the 100 Y-junctions, the 100 Z-junctions, the 100 A-junctions, the 100 B-junctions, the 100 C-junctions, the 100 D-junctions, the 100 E-junctions, the 100 F-junctions, the 100 G-junctions, the 100 H-junctions, the 100 I-junctions, the 100 J-junctions, the 100 K-junctions, the 100 L-junctions, the 100 M-junctions, the 100 N-junctions, the 100 O-junctions, the 100 P-junctions, the 100 Q-junctions, the 100 R-junctions, the 100 S-junctions, the 100 T-junctions, the 100 U-junctions, the 100 V-junctions, the 100 W-junctions, the 100 X-junctions, the 100 Y-junctions, the 100 Z-junctions, the 100 A-junctions, the 100 B-junctions, the 100 C-junctions, the 100 D-junctions, the 100 E-junctions, the 100 F-junctions, the 100 G-junctions, the 100 H-junctions, the 100 I-junctions, the 100 J-junctions, the 100 K-junctions, the 100 L-junctions, the 100 M-junctions, the 100 N-junctions, the 100 O-junctions, the 100 P-junctions, the 100 Q-junctions, the 100 R-junctions, the 100 S-junctions, the 100 T-junctions, the 100 U-junctions, the 100 V-junctions, the 100 W-junctions, the 100 X-junctions, the 100 Y-junctions, the 100 Z-junctions, the 100 A-junctions, the 100 B-junctions, the 100 C-junctions, the 100 D-junctions, the 100 E-junctions, the 100 F-junctions, the 100 G-junctions, the 100 H-junctions, the 100 I-junctions, the 100 J-junctions, the 100 K-junctions, the 100 L-junctions, the 100 M-junctions, the 100 N-junctions, the 100 O-junctions, the 100 P-junctions, the 100 Q-junctions, the 100 R-junctions, the 100 S-junctions, the 100 T-junctions, the 100 U-junctions, the 100 V-junctions, the 100 W-junctions, the 100 X-junctions, the 100 Y-junctions, the 100 Z-junctions, the 100 A-junctions, the 100 B-junctions, the 100 C-junctions, the 100 D-junctions, the 100 E-junctions, the 100 F-junctions, the 100 G-junctions, the 100 H-junctions, the 100 I-junctions, the 100 J-junctions, the 100 K-junctions, the 100 L-junctions, the 100 M-junctions, the 100 N-junctions, the 100 O-junctions, the 100 P-junctions, the 100 Q-junctions, the 100 R-junctions, the 100 S-junctions, the 100 T-junctions, the 100 U-junctions, the 100 V-junctions, the 100 W-junctions, the 100 X-junctions, the 100 Y-junctions, the 100 Z-junctions, the 100 A-junctions, the 100 B-junctions, the 100 C-junctions, the 100 D-junctions, the 100 E-junctions, the 100 F-junctions, the 100 G-junctions, the 100 H-junctions, the 100 I-junctions, the 100 J-junctions, the 100 K-junctions, the 100 L-junctions, the 100 M-junctions, the 100 N-junctions, the 100 O-junctions, the 100 P-junctions, the 100 Q-junctions, the 100 R-junctions, the 100 S-junctions, the 100 T-junctions, the 100 U-junctions, the 100 V-junctions, the 100 W-junctions, the 100 X-junctions, the 100 Y-junctions, the 100 Z-junctions, the 100 A-junctions, the 100 B-junctions, the 100 C-junctions, the 100 D-junctions, the 100 E-junctions, the 100 F-junctions, the 100 G-junctions, the 100 H-junctions, the 100 I-junctions, the 100 J-junctions, the 100 K-junctions, the 100 L-junctions, the 100 M-junctions, the 100 N-junctions, the 100 O-junctions, the 100 P-junctions, the 100 Q-junctions, the 100 R-junctions, the 100 S-junctions, the 100 T-junctions, the 100 U-junctions, the 100 V-junctions, the 100 W-junctions, the 100 X-junctions, the 100 Y-junctions, the 100 Z-junctions, the 100 A-junctions, the 100 B-junctions, the 100 C-junctions, the 100 D-junctions, the 100 E-junctions, the 100 F-junctions, the 100 G-junctions, the 100 H-junctions, the 100 I-junctions, the 100 J-junctions, the 100 K-junctions, the 100 L-junctions, the 100 M-junctions, the 100 N-junctions, the 100 O-junctions, the 100 P-junctions, the 100 Q-junctions, the 100 R-junctions, the 100 S-junctions, the 100 T-junctions, the 100 U-junctions, the 100 V-junctions, the 100 W-junctions, the 100 X-junctions, the 100 Y-junctions, the 100 Z-junctions, the 100 A-junctions, the 100 B-junctions, the 100 C-junctions, the 100 D-junctions, the 100 E-junctions, the 100 F-junctions, the 100 G-junctions, the 100 H-junctions, the 100 I-junctions, the 100 J-junctions, the 100 K-junctions, the 100 L-junctions, the 100 M-junctions, the 100 N-junctions, the 100 O-junctions, the 100 P-junctions, the 100 Q-junctions, the 100 R-junctions, the 100 S-junctions, the 100 T-junctions, the 100 U-junctions, the 100 V-junctions, the 100 W-junctions, the 100 X-junctions, the 100 Y-junctions, the 100 Z-junctions, the 100 A-junctions, the 100 B-junctions, the 100 C-junctions, the 100 D-junctions, the 100 E-junctions, the 100 F-junctions, the 100 G-junctions, the 100 H-junctions, the 100 I-junctions, the 100 J-junctions, the 100 K-junctions, the 100 L-junctions, the 100 M-junctions, the 100 N-junctions, the 100 O-junctions, the 100 P-junctions, the 100 Q-junctions, the 100 R-junctions, the 100 S-junctions, the 100 T-junctions, the 100 U-junctions, the 100 V-junctions, the 100 W-junctions, the 100 X-junctions, the 100 Y-junctions, the 100 Z-junctions, the 100 A-junctions, the 100 B-junctions, the 100 C-junctions, the 100 D-junctions, the 100 E-junctions, the 100 F-junctions, the 100 G-junctions, the 100 H-junctions, the 100 I-junctions, the 100 J-junctions, the 100 K-junctions, the 100 L-junctions, the 100 M-junctions, the 100 N-junctions, the 100 O-junctions, the 100 P-junctions, the 100 Q-junctions, the 100 R-junctions, the 100 S-junctions, the 100 T-junctions, the 100 U-junctions, the 100 V-junctions, the 100 W-junctions, the 100 X-junctions, the 100 Y-junctions, the 100 Z-junctions, the 100 A-junctions, the 100 B-junctions, the 100 C-junctions, the 100 D-junctions, the 100 E-junctions, the 100 F-junctions, the 100 G-junctions, the 100 H-junctions, the 100 I-junctions, the 100 J-junctions, the 100 K-junctions, the 100 L-junctions, the 100 M-junctions, the 100 N-junctions, the 100 O-junctions, the 100 P-junctions, the 100 Q-junctions, the 100 R-junctions, the 100 S-junctions, the 100 T-junctions, the 100 U-junctions, the 100 V-junctions, the 100 W-junctions, the 100 X-junctions, the 100 Y-junctions, the 100 Z-junctions, the 100 A-junctions, the 100 B-junctions, the 100 C-junctions, the 100 D-junctions, the 100 E-junctions, the 100 F-junctions, the 100 G-junctions, the 100 H-junctions, the 100 I-junctions, the 100 J-junctions, the 100 K-junctions, the 100 L-junctions, the 100 M-junctions, the 100 N-junctions, the 100 O-junctions, the 100 P-junctions, the 100 Q-junctions, the 100 R-junctions, the 100 S-junctions, the 100 T-junctions, the 100 U-junctions, the 100 V-junctions, the 100 W-junctions, the 100 X-junctions, the 100 Y-junctions, the 100 Z-junctions, the 100 A-junctions, the 100 B-junctions, the 100 C-junctions, the 100 D-junctions, the 100 E-junctions, the 100 F-junctions, the 100 G-junctions, the 100 H-junctions, the 100 I-junctions, the 100 J-junctions, the 100 K-junctions, the 100 L-junctions, the 100 M-junctions, the 100 N-junctions, the 100 O-junctions, the 100 P-junctions, the 100 Q-junctions, the 100 R-junctions, the 100 S-junctions, the 100 T-junctions, the 100 U-junctions, the 100 V-junctions, the 100 W-junctions, the 100 X-junctions, the 100 Y-junctions, the 100 Z-junctions, the 100 A-junctions, the 100 B-junctions, the 100 C-junctions, the 100 D-junctions, the 100 E-junctions, the 100 F-junctions, the 100 G-junctions, the 100 H-junctions, the 100 I-junctions, the 100 J-junctions, the 100 K-junctions, the 100 L-junctions, the 100 M-junctions, the 100 N-junctions, the 100 O-junctions, the 100 P-junctions, the 100 Q-junctions, the 100 R-junctions, the 100 S-junctions, the 100 T-junctions, the 100 U-junctions, the 100 V-junctions, the 100 W-junctions, the 100 X-junctions, the 100 Y-junctions, the 100 Z-junctions, the 100 A-junctions, the 100 B-junctions, the 100 C-junctions, the 100 D-junctions, the 100 E-junctions, the 100 F-junctions, the 100 G-junctions, the 100 H-junctions, the 100 I-junctions, the 100 J-junctions, the 100 K-junctions, the 100 L-junctions, the 100 M-junctions, the 100 N-junctions, the 100 O-junctions, the 100 P-junctions, the 100 Q-junctions, the 100 R-junctions, the 100 S-junctions, the 100 T-junctions, the 100 U-junctions, the 100 V-junctions, the 100 W-junctions, the 100 X-junctions, the 100 Y-junctions, the 100 Z-junctions, the 100 A-junctions, the 100 B-junctions, the 100 C-junctions, the 100 D-junctions, the 100 E-junctions, the 100 F-junctions, the 100 G-junctions, the 100 H-junctions, the 100 I-junctions, the 100 J-junctions, the 100 K-junctions, the 100 L-junctions, the 100 M-junctions, the 100 N-junctions, the 100 O-junctions, the 100 P-junctions, the 100 Q-junctions, the 100 R-junctions, the 100 S-junctions, the 100 T-junctions, the 100 U-junctions, the 100 V-junctions, the 100 W-junctions, the 100 X-junctions, the 100 Y-junctions, the 100 Z-junctions, the 100 A-junctions, the 100 B-junctions, the 100 C-junctions, the 100 D-junctions, the 100 E-junctions, the 100 F-junctions, the 100 G-junctions, the 100 H-junctions, the 100 I-junctions, the 100 J-junctions, the 100 K-junctions, the 100 L-junctions, the 100 M-junctions, the 100 N-junctions, the 100 O-junctions, the 100 P-junctions, the 100 Q-junctions, the 100 R-junctions, the 100 S-junctions, the 100 T-junctions, the 100 U-junctions, the 100 V-junctions, the 100 W-junctions, the 100 X-junctions, the 100 Y-junctions, the 100 Z-junctions, the 100 A-junctions, the 100 B-junctions, the 100 C-junctions, the 100 D-junctions, the 100 E-junctions, the 100 F-junctions, the 100 G-junctions, the 100 H-junctions, the 100 I-junctions, the 100 J-junctions, the 100 K-junctions, the 100 L-junctions, the 100 M-junctions, the 100 N-junctions, the 100 O-junctions, the 100 P-junctions, the 100 Q-junctions, the 100 R-junctions, the 100 S-junctions, the 100 T-junctions, the 100 U-junctions, the 100 V-junctions, the 100 W-junctions, the 100 X-junctions, the 100 Y-junctions, the 100 Z-junctions, the 100 A-junctions, the 100 B-junctions, the 100 C-junctions, the 100 D-junctions, the 100 E-junctions, the 100 F-junctions, the 100 G-junctions, the 100 H-junctions, the 100 I-junctions, the 100 J-junctions, the 100 K-junctions, the 100 L-junctions, the 100 M-junctions, the 100 N-junctions, the 100 O-junctions, the 100 P-junctions, the 100 Q-junctions, the 100 R-junctions, the 100 S-junctions, the 100 T-junctions, the 100 U-junctions, the 100 V-junctions, the 100 W-junctions, the 100 X-junctions, the 100 Y-junctions, the 100 Z-junctions, the 100 A-junctions, the 100 B-junctions, the 100 C-junctions, the 100 D-junctions, the 100 E-junctions, the 100 F-junctions, the 100 G-junctions, the 100 H-junctions, the 100 I-junctions, the 100 J-junctions, the 100 K-junctions, the 100 L-junctions, the 100 M-junctions, the 100 N-junctions, the 100 O-junctions, the 100 P-junctions, the 100 Q-junctions, the 100 R-junctions, the 100 S-junctions, the 100 T-junctions, the 100 U-junctions, the 100 V-junctions, the 100 W-junctions, the 100 X-junctions, the 100 Y-junctions, the 100 Z-junctions, the 100 A-junctions, the 100 B-junctions, the 100 C-junctions, the 100 D-junctions, the 100 E-junctions, the 100 F-junctions, the 100 G-junctions, the 100 H-junctions, the 100 I-junctions, the 100 J-junctions, the 100 K-junctions, the 100 L-junctions, the 100 M-junctions, the 100 N-junctions, the 100 O-junctions, the 100 P-junctions, the 100 Q-junctions, the 100 R-junctions, the 100 S-junctions, the 100 T-junctions, the 100 U-junctions, the 100 V-junctions, the 100 W-junctions, the 100 X-junctions, the 100 Y-junctions, the 100 Z-junctions, the 100 A-junctions, the 100 B-junctions, the 100 C-junctions, the 100 D-junctions, the 100 E-junctions, the 100 F-junctions, the 100 G-junctions, the 100 H-junctions, the 100 I-junctions, the 100 J-junctions, the 100 K-junctions, the 100 L-junctions, the 100 M-junctions, the 100 N-junctions, the 100 O-junctions, the 100 P-junctions, the 100 Q-junctions, the 100 R-junctions, the 100 S-junctions, the 100 T-junctions, the 100 U-junctions, the 100 V-junctions, the 100 W-junctions, the 100 X-junctions, the 100 Y-junctions, the 100 Z-junctions, the 100 A-junctions, the 100 B-junctions, the 100 C-junctions, the 100 D-junctions, the 100 E-junctions, the 100 F-junctions, the 100 G-junctions, the 100 H-junctions, the 100 I-junctions, the 100 J-junctions, the 100 K-junctions, the 100 L-junctions, the 100 M-junctions, the 100 N-junctions, the 100 O-junctions, the 100 P-junctions, the 100 Q-junctions, the 100 R-junctions, the 100 S-junctions, the 100 T-junctions, the 100 U-junctions, the 100 V-junctions, the 100 W-junctions, the 100 X-junctions, the 100 Y-junctions, the 100 Z-junctions, the 100 A-junctions, the 100 B-junctions, the 100 C-junctions, the 100 D-junctions, the 100 E-junctions, the 100 F-junctions, the 100 G-junctions, the 100 H-junctions, the 100 I-junctions, the 100 J-junctions, the 100 K-junctions, the 100 L-junctions, the 100 M-junctions, the 100 N-junctions, the 100 O-junctions, the 100 P-junctions, the 100 Q-junctions, the 100 R-junctions, the 100 S-junctions, the 100 T-junctions, the 100 U-junctions, the 100 V-junctions, the 100 W-junctions, the 100 X-junctions, the 100 Y-junctions, the 100 Z-junctions, the 100 A-junctions, the 100 B-junctions, the 100 C-junctions, the 100 D-junctions, the 100 E-junctions, the 100 F-junctions, the 100 G-junctions, the 100 H-junctions, the 100 I-junctions, the 100 J-junctions, the 100 K-junctions, the 100 L-junctions, the 100 M-junctions, the 100 N-junctions, the 100 O-junctions, the 100 P-junctions, the 100 Q-junctions, the 100 R-junctions, the 100 S-junctions, the 100 T-junctions, the 100 U-junctions, the 100 V-junctions, the 100 W-junctions, the 100 X-junctions, the 100 Y-junctions, the 100 Z-junctions, the 100 A-junctions, the 100 B-junctions, the 100 C-junctions, the 100 D-junctions, the 100 E-junctions, the 100 F-junctions, the 100 G-junctions, the 100 H-junctions, the 100 I-junctions, the 100 J-junctions, the 100 K-junctions, the 100 L-junctions, the 100 M-junctions, the 100 N-junctions, the 100 O-junctions, the 100 P-junctions, the 100 Q-junctions, the 100 R-junctions, the 100 S-junctions, the 100 T-junctions, the 100 U-junctions, the 100 V-junctions, the 100 W-junctions, the 100 X-junctions, the 100 Y-junctions, the 100 Z-junctions, the 100 A-junctions, the 100 B-junctions, the 100 C-junctions, the 100 D-junctions, the 100 E-junctions, the 100 F-junctions, the 100 G-junctions, the 100 H-junctions, the 100 I-junctions, the 100 J-junctions, the 100 K-junctions, the 100 L-junctions, the 100 M-junctions, the 100 N-junctions, the 100 O-junctions, the 100 P-junctions, the 100 Q-junctions, the 100 R-junctions, the 100 S-junctions, the 100 T-junctions, the 100 U-junctions, the 100 V-junctions, the 100 W-junctions, the 100 X-junctions, the 100 Y-junctions, the 100 Z-junctions, the 100 A-junctions, the 100 B-junctions, the 100 C-junctions, the 100 D-junctions, the 100 E-junctions, the 100 F-junctions, the 100 G-junctions, the 100 H-junctions, the 100 I-junctions, the 100 J-junctions, the 100 K-junctions, the 100 L-junctions, the 100 M-junctions, the 100 N-junctions, the 100 O-junctions, the 100 P-junctions, the 100 Q-junctions, the 100 R-junctions, the 100 S-junctions, the 100 T-junctions, the 100 U-junctions, the 100 V-junctions, the 100 W-junctions, the 100 X-junctions, the 100 Y-junctions, the 100 Z-junctions, the 100 A-junctions, the 100 B-junctions, the 100 C-junctions, the 100 D-junctions, the 100 E-junctions, the 100 F-junctions, the 100 G-junctions, the 100 H-junctions, the 100 I-junctions, the 100 J-junctions, the 100 K-junctions, the 100 L-junctions, the 100 M-junctions, the 100 N-junctions, the 100 O-junctions, the 100 P-junctions, the 100 Q-junctions, the 100 R-junctions, the 100 S-junctions, the 100 T-junctions, the 100 U-junctions, the 100 V-junctions, the 100 W-junctions, the 100 X-junctions, the 100 Y-junctions, the 100 Z-junctions, the 100 A-junctions, the 100 B-junctions, the 100 C-junctions, the 100 D-junctions, the 100 E-junctions, the 100 F-junctions, the 100 G-junctions, the 100 H-junctions, the 100 I-junctions, the 100 J-junctions, the 100 K-junctions, the 100 L-junctions, the 100 M-junctions, the 100 N-junctions, the 100 O-junctions, the 100 P-junctions, the 100 Q-junctions, the 100 R-junctions, the 100 S-junctions, the 100 T-junctions, the 100 U-junctions, the 100 V-junctions, the 100 W-junctions, the 100 X-junctions, the 100 Y-junctions, the 100 Z-junctions, the 100 A-junctions, the 100 B-junctions, the 100 C-junctions, the 100 D-junctions, the 100 E-junctions, the 100 F-junctions, the 100 G-junctions, the 100 H-junctions, the 100 I-junctions, the 100 J-junctions, the 100 K-junctions, the 100 L-junctions, the 100 M-junctions, the 100 N-junctions, the 100 O-junctions, the 100 P-junctions, the 100 Q-junctions, the 100 R-junctions, the 100 S-junctions, the 100 T-junctions, the 100 U-junctions, the 100 V-junctions, the 100 W-junctions, the 100 X-junctions, the 100 Y-junctions, the 100 Z-junctions, the 100 A-junctions, the 100 B-junctions, the 100 C-junctions, the 100 D-junctions, the 100 E-junctions, the 100 F-junctions, the 100 G-junctions, the 100 H-junctions, the 100 I-junctions, the 100 J-junctions, the 100 K-junctions, the 100 L-junctions, the 100 M-junctions, the 100 N-junctions, the 100 O-junctions, the 100 P-junctions, the 100 Q-junctions, the 100 R-junctions, the 100 S-junctions, the 100 T-junctions, the 100 U-junctions, the 100 V-junctions, the 100 W-junctions, the 100 X-junctions, the 100 Y-junctions, the 100 Z-junctions, the 100 A-junctions, the 100 B-junctions, the 100 C-junctions, the 100 D-junctions, the 100 E-junctions, the 100 F-junctions, the 100 G-junctions, the 100 H-junctions, the 100 I-junctions, the 100 J-junctions, the 100 K-junctions, the 100 L-junctions, the 100 M-junctions, the 100 N-junctions, the 100 O-junctions, the 100 P-junctions, the 100 Q-junctions, the 100 R-junctions, the 100 S-junctions, the 100 T-junctions, the 100 U-junctions, the 100 V-junctions, the 100 W-junctions, the 100 X-junctions, the 100